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NOTES  
ON THE  
NORTH-WESTERN PROVINCES  
OF  
INDIA.

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*Charles Crosthwaite*

BY  
A DISTRICT OFFICER.

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## P R E F A C E.

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THESE pages, written during some hours of unwilling inactivity, are published in the hope that they may interest those few who care to know anything about India.

The writer has tried to set down such notes on the Agriculture and Land Tenures of the North-Western Provinces as will be intelligible to English readers.

Members of the Civil Service, who have served in the Provinces, will find little in these pages worthy of their perusal; but if men now entering the Service will, without taking the writer as an authority, closely test his statements by their own inquiries, they will find, it is hoped, some aid towards the attainment of that knowledge of agricultural customs and tenures which it should be their first object to acquire.



# NOTES

ON THE

## NORTH-WESTERN PROVINCES OF INDIA.

### I.

#### ON THE AREA AND POPULATION.

THE territory of the North-Western Provinces is shaped like an irregular crescent, the western horn reaching up through the Himalayas to the watershed line which divides us from Thibet, the eastern stopping abruptly at the base of those mountains. Snug in the hollow of the crescent lie the dominions of Oude; while, from the mid point of the outer edge, a small neck of British soil runs down between the kingdom of Gwalior and the native states of Rewa and Bundelcund. On the north-western boundary lie the territories of the Punjab, and of the independent state of Bhurtpoor. On the south-eastern we have the Lower Provinces of Bengal, and the kingdom of Rewa,

From horn to horn, following the sweep of the crescent, run the Jumna and the Ganges. Flowing in nearly parallel lines until they meet at Allahabad, they enclose between their streams a long and narrow strip of country, known as the Doab. From Allahabad, which is now the capital of the provinces, the united stream flows on to the very end of the eastern horn, where it meets the Ghogra river.

Besides this territory, which I have likened to an irregular crescent, there is an outlying district, that of Ajmere, also under the Government of the North-Western Provinces. The area of Ajmere is 2,672 square miles, while that of the main territory is 80,707 square miles. The total area under the North-Western Government is 83,379 square miles, which support a population of thirty millions one hundred and ten thousand. In extent of territory, then, these Provinces nearly equal England, Wales, and Ireland together, while in numbers they surpass Great Britain and Ireland, and approach within a few thousand of the population of the United States. This vast province, which would be an empire in Europe, is ruled by a Lieutenant-Governor, under the Governor-General of India. He is aided by a

Revenue Board, consisting of two Members and a Secretary, to whom all matters belonging to the revenue and the land are, in the first instance, referred. The administration of civil and criminal justice is watched over by a High Court, similar in constitution to those which sit in the Presidency Towns.

The Provinces are divided into eight Divisions, under as many Commissioners, each of whom, in his own Division, is the agent and representative of the Governor. The Divisions are again divided into five-and-thirty Districts; each District is under an officer known by the name of "Magistrate and Collector."\* This officer is responsible to the Government for almost everything connected with the welfare of the district entrusted to him. He has to see that the revenue is collected, and the accounts properly kept. He has the administration of criminal justice, and, to some extent, of civil also. He is responsible for the police, and he is expected to take an interest in all Government institutions, schools, dispensaries, and the like, and to promote their efficiency. Except

\* In the "non-regulation" districts this officer is called "Deputy Commissioner," and his duties include the administration of civil justice to a greater extent.

the main lines of communication, which have been handed over to the Public Works Department, the District Officer has the making and mending of all roads and bridges, and the construction of most of the buildings, such as schools, police stations, and the like. In each department of his work he has more or less assistance, both native and European. But the reins which guide the team are all drawn together and put into his hands. To the natives he is the personification of Government; and it is not too much to say, that *to them* the character of the British Government varies with the character of their District Officer.

The Districts are again divided into three or more Sub-districts, according to their size. In charge of each Sub-district is a native officer, who may be best described as a miniature of the District Officer, to whom he is entirely and completely subordinate. These native officers, or Sub-collectors, as they are somewhat inadequately named, are the links between the District Officer and his people. They are more or less the executive of every department of the Government, and their importance cannot well be exaggerated. They are generally allowed to remain for many years in their Sub-districts,

and when they are good and efficient men, they acquire a minute and extended knowledge of the people and the country which the English officer, often shifted as he is, can rarely hope to obtain at first hand.

Each Sub-district contains one or more "Hundreds," to use an English word. These hundreds are ancient divisions of the country, the boundaries of which have seldom been tampered with by us. After the Hundreds, comes the last division of the land into Townlands, or Townships.

As each Sub-district is united to the District Officer by its Sub-collector, so each Township is connected with the Sub-collector by the Village Accountant, who has charge of one or more Townships, according to their size.

The Village Accountant, as his name implies, keeps the rent-roll and accounts of every estate. This is his first duty. But he has many important offices besides; and as a means of communication between the people and the Government, he can be made of much value.

It will be seen, then, that the organization at the disposal of the Government of these Provinces is such as to enable them to reach the very lowest strata of which society is composed.

Whether the machine works so as to attain this end, depends very much upon the *personnel* of the District Officers and their subordinates. That the end is attained to a great measure, and that our hold upon the country is firm and deeply felt, I believe can hardly be denied. It is in this respect that the Government of the North-West differs from that of Lower Bengal. In the latter Province there is nothing below the District Officer. The links which connect the English officer with the native population are wanting.

The following facts, taken from the Census Report of 1865, for the North-Western Provinces, will give the reader some idea of the country :—

The people of the Provinces are chiefly occupied in agriculture, the numbers being nearly eighteen millions of agriculturists to twelve millions of other pursuits. By far the greater number are Hindoos. There are only four millions and a quarter of Musulmans to twenty-six millions of Hindoos. Yet so little do mere numbers weigh against energy and independence of character, that there are few ordinary observers who would not assign a far larger place to the followers of the Prophet. Of the Mahomedans, sixty per cent. are engaged in non-

agricultural pursuits, while only thirty-eight per cent. of the Hindoos have any other occupation than husbandry.

The total area of the Provinces is 53,363,152 acres, of which 23,747,268 are cultivated. Of the remainder, 10,754,382 acres are returned as barren.

The land revenue is, in round numbers, four million pounds sterling, falling at the rate of one shilling and eightpence per acre on the total area, and of three shillings and fourpence on the cultivated acre. The land revenue is held to represent not less than half of the whole rental. The average rental of the Provinces may, therefore, be roughly stated at six shillings and eightpence per acre. There is still room for an enormous rise in the rents, and consequently in the land revenue, if land in India ever approaches in value to land in England. I, for one, have no doubt that it will.

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## II.

## ON THE SOILS.

THE soils in the North-West Provinces of India fall readily into the common classification of clay, loam, and sand. The local names and varieties are legion, but they can all be reduced into one of these three classes.

In the Doab the loam is found to preponderate. Clay is seldom met with in any great quantities except in the low lands which border the rivers, and form the beds of the ponds and marshes. Sand is very common. It is generally found on high-lying ground, and runs in broad ridges, with clearly defined boundaries, through many miles of country. These sandy tracts appear to be more or less shifting in character at first. Cultivation and planting tend to settle or fix them; and in time they improve greatly in quality as arable soil.

In the moist countries of Rohilcund, which lie almost under the shadow of the Himalayas, more clay is found than in the Doab. Hence

those countries are great rice producers, and the character of their cultivation differs much in many respects from that of other parts.

In Bundelcund and Central India a black clay is found, which is especially adapted for cotton. It is a soil peculiar to those parts, so far as I know. It is very black in colour. In dry weather it cracks and splits with the heat of the sun, and the surface of it becomes like the rotten ice known to skaters as cats' ice. It is a work of danger to ride over it in this state. The cracks sometimes, when the first rain falls, become deep fissures, and extend for a mile or more. Large buildings of sound masonry crack from end to end owing to the progress of one of these fissures, and the mud buildings of native towns fall in numbers from the same cause.

With regard to the subsoils, they vary very much. In many parts of the Doab sand is the subsoil; sometimes a yellow sand; often a grey sand, which is hard and stiff when wet. The lime formation, which is known as "kunkur," and forms the admirable material for metalling our roads in Northern India, is a common subsoil. It is found at various depths from the surface, sometimes cropping up through the soil,

at other times ten or fifteen feet below it ; sometimes, like the chalk in Kent, underlying a thin coat of soil.

The black clay of Bundelcund is generally, I think, a deep soil ; but as wells are not common in that country, I am not sure of this. Wherever I have seen it opened up to any depth, the soil still appeared as black as on the surface, with veins of blue, the colour of sulphate of copper, running through it. In digging wells in this soil, it is generally necessary to go to a great depth ; and rock is often met with.

In close connection with the character of the subsoil is the productiveness of the land. Where drainage of every kind is still unknown, the substrata are often the cause of actual barrenness. The quantity of actual barren land in the Doab is very large. By the returns of the last census, which was taken in 1865, it was found that the barren land covered an area of more than ten million and seven hundred thousand acres, of which nearly eight millions are in the plain country.

One of the chief causes of barrenness is the presence of alkali in large quantities in the soil. The ground becomes perfectly white with it, and all vegetation is destroyed. In the Doab espe-

cially may be seen broad plains of this description, stretching for miles; looking as if they were covered with frost. The surface of the plain rises, as it were, into a crust, and feels soft and •spongy to the tread, and, after rain, becomes slippery and difficult to travel. Here and there a small irregular patch will be found fit for cultivation, and such patches are invariably made the most of. Wherever the soil is affected in this way, the fields will be found irregular and capricious in shape, following, as they must, the veins of arable land. The soil is almost always a light loam in character. I have never seen sand in proximity to land of this kind.

Seeing that there are vast tracts of land lying useless from this cause, it would be of great consequence, in a financial point of view, as well as in others, to discover a remedy. The result of my own observation is, that want of drainage is the chief, if not the sole, cause. Generally, beneath soil of this kind will be found a hard compact bed of "kunkur"—that limestone formation already spoken of. This bed of kunkur as effectually prevents drainage as if a layer of masonry were beneath the soil. Hence the salts and injurious alkalies are retained, and are never sufficiently diluted or diminished to render

vegetation possible. If this bed of kunkur be removed, the ground will recover. Thus there are places along the Grand Trunk Road which have been quarried for kunkur, and which are now under cultivation, whereas they were perfectly barren before the kunkur was removed.

If this surmise is correct, and if the want of drainage is the cause, it will be long before there is capital enough among the agricultural community, and longer still before there is education enough, to enable them to apply the remedy.

In connection with this subject, it should be noticed, that the use of canal water for irrigation sometimes causes barrenness of this kind. That there is nothing in the canal water itself which would alter the character of the soil in this way I am convinced; for it has been in use for years in many places without any appearance of the soil becoming overstocked with alkali. The cause of the phenomenon must be sought elsewhere—either in want of drainage, or in latent peculiarities of the soil itself, which may be evoked by the canal water.

Another great cause of the land lying waste is the growth of a sort of grass with long-spreading stems, which are deep and strong enough to resist the small native plough. This grass is

called "kans" in the language of the country. Its ravages are great, especially in Bundelcund, where wide plains lie untouched by the plough for years, owing to the hold taken by this weed. In the Doab it is also found widely spread in some places; but out of Bundelcund I have not seen it take a hold in any but the very poorest sandy soil.

The ravages of "kans" are not only to be measured by their extent, but also by their duration. Once firmly rooted in the soil, there is apparently no remedy but patience until the ground shall recover its former strength, and the weed shall die out. It would appear that not less than ten years are necessary for this process. It is said, too, that a great drought which has caused famine has been fatal to this grass, and has left the soil free; but no process of manuring or tillage has been discovered which will answer the purpose. There is, I believe, no doubt but that this grass will not appear in the land so long as it is kept in good condition. Hence we often find that the estates which are suffering from the ravages of "kans," are those that are in a distressed state from over-assessment or other cause. The farmer had not the means to maintain his cattle in working order, or to

manure his land; and when once the grass has appeared, the plough bullocks have not the strength to tear up the long stem, which spreads underground for many feet, throwing out ramifying roots at close intervals.

A good deal of barren land is also found on the high banks which overlook the valleys of the larger rivers. The heavy torrents of rain which fall during the wet season pour down the sloping lands, and soon cut them up into ravines, and wash away every particle of soil. Year after year this process goes on, and the estates thus situated undergo a visible and speedy deterioration. The land lying unproductive to Government, as well as to the nation at large, from this cause is very extensive. The remedy is simple. It is merely requisite to bank up the fields so as to prevent the collection and rush of the rainfall. The good soil would thus be retained.

But this process of embankment would have to be done systematically. It would also require the expenditure of some labour; and the tenure of the land in small and scattered holdings prevents any combined action, unless it is organized and put forth by the Government, who have more than enough on their hands already. Something, however, might be done in this direction,

if the matter were entrusted to a man of practical experience and knowledge.

But if all the barren land were redeemed, the increase to the productive capacity of the country would be small in comparison to what it might be, were the means devised of saving the farm-yard manure. Nothing, I believe, tends to keep the agricultural classes so poor as the want of fuel, which compels them to use the dung for that purpose. The cow-dung is all carefully saved for this end. It is the chief occupation of the Indian peasant housewife, after she has drawn the water and kneaded the dough, to make the cow-dung into pats, and spread it to dry in the sun. It is then, if not wanted for immediate use, stacked and coated with mud to preserve it from wet. Tons of it are every day brought into the large towns for sale, and it forms the only fuel used by the great mass of the population. In the cold weather, when a fire at night and in the early morning is a want, every available bit of horse, sheep, or goat's dung is greedily gathered and burnt. The women of the village may be seen scattered over the grazing plains gathering in baskets every scrap of precious ordure that they can find.

There are, or were, I believe, benighted tracts

in this kingdom of Great Britain and Ireland where the same custom existed. But if the whole farmyard manure of the country went to supply the place of coal and turf and wood, then only would the condition of India in this respect be realized. Nothing, in fact, but the wonderful fertility of the soil, which seems to need water alone as a manure, saves the agricultural classes from utter ruin under such a system. But that it leads to the impoverishment of them, and of the whole country with them, is, I believe, as certain as it is that a good dose of farmyard manure will more than double the crop.

The only remedy for this great evil is to be found in the growth of wood for fuel. When timber grows so rapidly and easily as it does in India, this ought to be no difficult matter. Government is, indeed, in no way open to the charge of neglect in the matter of encouragement. But what has been done in this direction has been with a view to provide the country with trees for shade and timber, rather than for fuel. Until some large and comprehensive scheme for the growth of forests for this purpose, in every part of the country, be put in force, nothing will have been done. The

railway, while it depended on wood, devoured more timber in a year, than Government officers ever planted since attention was given to the subject.

• Coal has not yet been found either in quantity or in localities which can meet the demand even of the richest classes. Wood for fuel sells at about three hundredweight for two shillings. While the wage of the common labourer is from six to eight shillings per month, the pay of a policeman from ten to fourteen shillings, and flour seldom sells for less than a shilling per stone. How, then, can the poorer classes buy wood for their fires? It is obviously impossible, until it is offered to them at a very small part of its present price.

There is very little forest land in the North-Western Provinces, except in the mountainous or hilly tracts, and in the damp lands at their base. Within the last few years, the attention of Government has been drawn to the preservation of the forests already existing. A department, ably officered, has been organized for this purpose, and there is every hope that the woods will increase in extent and improve in character every year. But in a vast country like India, where we count our miles by hundreds, some-

thing much more must be done before firewood is placed within reach of the people. It would be necessary to have large woods grown and kept for fuel in every twenty square miles of country. Nature has provided a wood especially for the purpose in the tree called "Dhâk," which used to cover vast tracts of country, and is still found in considerable quantities. It is the wood usually sold for fuel in this part of India; it grows freely in bad soil, can be cut every three years, and its timber is no good for anything else. It also yields a gum which is valuable in commerce. Large tracts of country might easily and quickly be covered with this tree.

Objections may, of course, be urged against such a scheme. It will be thought chimerical to propose that Government should undertake to supply a vast continent with firewood; but the Government of India being virtually landlord, has means at its command which one, unacquainted with its machinery, could hardly dream of. If success could be attained, there is no difficulty in the way worth a thought. It is not to be supposed that the whole population could be supplied with firewood by this or any other plan until a long course of years had

matured a system and altered the customs of the people. But with the example of many European nations before us, we surely need not despair of attaining such a result. The growth of timber in India is so rapid, compared to its growth in Europe, that we start with a great advantage on our side; and although we might be long ere we completely, or even nearly, supplanted dung as fuel, yet it would be only a very short time before we could supply wood in sufficient quantities to meet the wants of the upper classes, and of the manufacturers of such articles as bricks, and the like. The quantity of manure consumed in brick and lime kilns alone is a great loss to the soil.

Other objections, connected with police, might be urged against the growth of such plantations. These "Dhâk Junguls," as they are called in common parlance, have always been a resort for robbers and bad characters, and many of them were in former times cut away in consequence. This evil result might be prevented by due care in planting to leave such rides and avenues in the woods as would render them useless for hiding-places. At any rate, considering the end in view, namely, to save from destruction the greater part of the farmyard

manure of so vast a country, and one so dependent on itself for food; I think some minor inconveniences might be endured.

Before dismissing this subject, it may be as well to say a little about those lands commonly called "waste." We are constantly hearing of these "waste" lands in the public press of the day. Thus the *Times* of the 20th November, 1868, says, "Why should not waste lands, of which there is an enormous area, be reclaimed and cultivated?" And even in the Indian newspapers, I have read a good deal of vague talk about "waste" lands, from which a stranger might imagine that large tracts of arable land were lying unclaimed and ownerless all over our dominions; and that the Government, through its civil servants, was preventing ready and able English capitalists from bringing them under the plough. One paper even went so far as to assert, that all the uncultivated lands in every estate were more or less "waste" in this sense. And the civil servants were charged with having culpably allowed these lands to be portioned off to the neighbouring estates, under the influence of that partiality to the native, and that hatred of the independent Englishman, which the Anglo-Indian editor once delighted to

attribute to the officers of Government. There is no harm in trying to brush away the cobwebs which cluster round this phrase "waste lands." What then, and where are the "waste lands" in the North-Western Provinces? In the plains, the land has from time immemorial been divided into separate townlands, or, as we usually call them, villages, known by distinct names, having definite boundaries and recognized owners; even the barren lands all fall into one or other of these townlands. The little good land which is left untilled for grazing has its own place and proprietor, just as much as the cultivated lands. It is perfect nonsense to apply our English term "common" to any land of this kind which exists in the North-West. There is no land, and never was, so far as we know, of the sort; nor, if there were, would it at all follow that Government might dispose of it to the highest bidder.

There is, however, one tract in the plains to which the term "waste," in the sense in which the *Times* uses it, does apply. Under the Himalaya range lies a broad strip of damp malarious country known as the "Terace," or the "damp country." This tract, although it was in ancient times inhabited, has long been abandoned to the hand of Nature, which luxuriates in such a spot.

She has covered it with forests of timber trees, and crowded it with high grass and tangling creepers, and made it a home for the elephant and the tiger. Except for a few months in the coldest and dryest seasons of the year, it is almost certain death to remain in this place. There are, indeed, a few natives who have become in process of time inured to it. These Taroos, as they are called, lead a kind of nomad life, using the almost virgin soil so long as it yields a full crop, and then seeking a fresh spot. But they are far too few in number to fight against the forest; and, if left alone, the Teraee would run a poor chance of being reclaimed.

This country is, I believe, at the entire disposal of the Government. But I am not aware that private enterprise has ever sought for a field in it. The Government of the North-Western Provinces has, for some years, worked steadily to reclaim it. An officer, known as the Superintendent of the Teraee, assisted by a civil engineer, manages it on behalf of Government. Cultivators are induced, by low rents and advances of money, to settle and break up land. Men from the adjoining districts, who have failed, or have quarrelled with their own landlords, are the chief recruits. Many of them die

from fever before they have weathered their first year in this unhealthy region ; but still the work is progressing. More land is yearly broken up. Roads and bridges are made, and the returns from the rents amply recoup the Government for their outlay.

So much for the "waste" lands in the plains. In the "Hills," as we term them,—that is, in the mountains of the Himalayan and Sewalick ranges,—there are, as one may suppose, vast forests and slopes, which are waste in every sense of the term. But here, too, I believe it to be a great mistake to suppose that all the uncultivated land is unowned. Great controversy has raged on this head between the officials and the tea planters. Especially where the land is adapted for cultivation, villages have existed, and the country has been parcelled out as in the plains. But, naturally, in a mountainous and difficult region, with a sparse population, boundaries have been ill-defined, and, no doubt, large areas do exist to which none of the present townships have any claim. But when a tea planter selects a site in a place which he believes—and perhaps rightly—to belong to no one save Government, the neighbouring villagers would not be Orientals if they

did not claim it at once. And their claims, it is said, have been too readily listened to in some cases. Of this I know nothing, save what I have seen in the newspapers, which are often not too well-informed. I merely mention the matter to show that the "waste" lands are not so ready at hand, even where they do undoubtedly exist, as people seem to think, in this country. It is not a case of Canada or Australia. You cannot go into the country and measure off a few thousand acres where it pleases you, and take possession. On the contrary, you will go into an ancient thickly populated country, among a litigious, ill-disposed people; and the area of "waste" land really at the disposal of Government exists only in certain places, although, relatively speaking, it may be of enormous extent.

In the North-Western Provinces, then, I am not aware of any "waste" lands, except the Teraee tract in the plains, and the mountain forest-clad regions of the Himalaya and Sewalick.

### III.

#### ON THE CROPS.

THERE are two distinct harvests in Northern India: the first sown in June, and gathered in October; the other sown in October, and gathered in March or April, according to the latitude of the place. Besides the crops which grow at these seasons, there is a third class of products which occupies the ground for the whole, or nearly the whole, year.

There is hardly a month out of the twelve in which the country does not show some crop, especially in the sugar districts. Hence it is sometimes thought, that a large portion of the soil bears two harvests in the year. This, however, is not the case. The proportion of land which is cropped twice in the year will hardly exceed five per cent. in ordinary estates. Round large towns—in market gardens, of course—crop succeeds crop, and the land is never idle; but, in ordinary farming, there are only certain crops which are out of the ground soon enough to admit of being followed by another. And

it is obvious that none but the highest conditioned and best manured land could stand work of this kind,—and that not always.

The autumn harvest depends almost entirely on the rains. The chief products of this harvest are the giant millets known as “Joar” and “Bajra;” maize, or Indian corn; pulse of several kinds; rice, and indigo.

The millets are the great resource of the cultivator, both for his own consumption and for fodder for his cattle. They grow, when the rains are favourable, to the height of ten or fifteen feet. The stalk is rich and pulpy, and, when chopped up, makes good feeding for cattle. The grain is small, and is much less nutritious than wheat. It is used by the peasant on account of its cheapness; as the ordinary cultivator can hardly ever afford to eat wheaten bread. These grains are sown broadcast and sparse; and along with them is sown a variety of pulses, which grow about and between them, and form a thick undergrowth. They give a large yield in proportion to the quantity of seed. The “Joar” requires a fair loam soil; while “Bajra” will grow almost anywhere, and is used to crop sandy dry lands, which would hardly bear anything else. The stalk of the

“Bajra” is much less useful for fodder than that of “Joar.”

This latter grain is sown in large quantities, simply for fodder. For this purpose it is sown much thicker, so as to grow to stalk, and it is cut before it ears. It is then out of the ground in time to admit of another crop being put in.

Maize, or Indian Corn, is well known in England and Ireland as an article of food. In Northern India this crop requires good land; and in the Doab it is seldom seen (except in the low lands on the Ganges) anywhere but near the homestead. It ripens soon, and is harvested in time to leave the ground free for a cold-weather crop of wheat or barley. It is a very cheap grain, and is only used to make bread by the poorer classes; but the ear, before it is too ripe, is toasted and eaten as a delicacy by all. I have found average crops of maize yielding as much as nineteen hundredweight to the acre.

These are the chief cereals of the autumn harvest. The mode of gathering the millet and the maize is the same. The ears are broken off as they ripen, and the stalk or straw is left standing until all the grain is gathered. The pulses, which are sown as undergrowth, ripen later, and are gathered and threshed. Their grains are

valuable as food, being usually parched and split ; their stalk and leaves make good fodder for the cattle. Taken altogether, the millets, and their accompanying pulse crop, are most valuable to the cultivator and his beasts. They depend almost entirely on the rains, and are sown generally in lands which are not irrigable from wells. The loss of these crops will, therefore, be most severely felt in times of drought.

I will next notice the Rice crop. In rice countries this is the most valuable of all ; but the greater portion of the North-Western Provinces is not a rice country. Rice has, indeed, become so connected in English ideas with India, that even well-informed people imagine that it forms the great staple food of the whole country. In the North-Western Provinces this is so far from being the case, that rice is a luxury. Rohilcund is the chief rice producer, and those districts, such as Saharunpore, where the climate is damp. Elsewhere, rice is an exceptional crop, which can only be grown in low-lying clay, where water is plenty, such as the country along the banks of the Ganges.

It is generally a very productive crop, and it is the more valuable, as it is out of the ground soon enough to admit of being followed by a

cold-weather crop; indeed, there is one kind which is said to take only sixty days from seed-time to harvest. There are numerous different kinds of rice.

There is another crop belonging to the autumn harvest, the product of which is well-known in Europe—namely, Indigo. It requires an ample supply of water. Its cultivation is, on this account, attended with considerable labour and expense. Unless it is properly watered, it will be worthless. It is seldom sown by the Indian peasant as a speculation, or on his own account. In the North-West, it is usual for the manufacturer, or planter as he is somewhat miscalled, to contract with the farmers, advancing them so much for every acre sown with indigo, and binding them to deliver the plant at a certain price per ton.

This plan seems to answer very well in our provinces, where we have had none of the indigo riots which have disturbed Lower Bengal. Except in one instance, where the agent was a man of bad character, I never heard of any oppression being exercised by the manufacturers; indeed, under the system in vogue in the North-West, and among the sturdy population of those provinces, such oppression as was said to have

taken place in Bengal would be simply impossible. If any one is oppressed, it is the manufacturer or planter himself. The peasant, after receiving the advance, is often tempted to follow one of three courses : either he pockets the money, and sows the land with something else, or he sells his plant when ready in the open market, or he refuses to cut it, and keeps it for seed. In any case, the planter is subjected to considerable trouble, and much loss. To protect himself against this fraud, he makes the contract as stringent as possible, binding the cultivator to allow him to cut the plant when it is ready, should the cultivator fail to deliver it. It is also a common thing, I believe, to take in pledge the cultivator's bullocks or other cattle as security for the advance. Sometimes, if the dispute between the manufacturer and the cultivator has become embittered, and the former endeavours to cut the plant, or to seize the bullocks which have been pledged, the cultivator will resist by force, or will lodge a complaint in the Courts ; but I am bound to say that such disputes are, in my experience, rare, and I have served in several districts where there were large indigo concerns. I have almost invariably found the planters and their employés to be respectable gentlemen, dealing

uprightly with the peasantry, and getting on well with them. They are, perhaps, open to the charge which is applicable to most Englishmen in India, especially since 1857—namely, of looking too exclusively to themselves, and of ignoring their duties to the country and the people of their sojourn. To make as much indigo, and to convert it into money as soon as can be, and to retire with their gains, is too often their whole thought. Hence they do not occupy that position which they might do. In some cases, however, where they give themselves leisure to think of other things, they become a power and authority in the district, and the district officer has no better counsellors and assistants.

The indigo, as I have said, requires constant irrigation; and it also needs good land and manure. It is therefore an expensive crop to the cultivator. Its yield varies a good deal, the plant sometimes growing much higher than in other seasons. As an average, I think about two tons of plant per acre a fair estimate. The cultivators in this part of India usually contract to deliver indigo plant at sixteen rupees per hundred maunds of eighty pounds each. They get more if they have to carry it far; but this is the usual price for the plant when it is grown

near the factory. This would, in round numbers, give the cultivator a return of ten rupees, or one pound sterling, per acre. The rent of land that would grow indigo would ordinarily not be less than six rupees, or twelve shillings per acre. This would leave the cultivator only eight shillings to pay for constant irrigation, and the cutting and carriage for a mile or less. The cultivation, therefore, taken by itself, is hardly remunerative; nevertheless, the cultivator is glad to undertake it. In the first place, he gets an advance of money at a time when he sorely needs it, and when there is no other incoming. Secondly, the indigo does not weary the ground; and when the plant is cut, he ploughs it up and puts in wheat. Although, therefore, the price may not be remunerative, as compared with that of other crops, yet looking to these circumstances, and to the fact that if he was not employed in irrigating the indigo, he and his bullocks would be unoccupied at that time, the arrangement as a whole is decidedly good for the cultivator. The refuse indigo stalks, after the colouring matter is extracted, make a very strong manure. When sold in the open market, the plant fetches a much higher price, namely, from twenty to thirty rupees, according to the

season, instead of sixteen rupees, the contract price per hundred maunds ; hence the temptation to dishonesty.

The price of indigo seed varies very greatly, and it is a great subject for speculation. But if the indigo is left to seed, it cannot be out of the ground soon enough to allow another crop to be put in for the cold weather. Such are the chief autumn or rain crops. In the cold weather, the harvest consists chiefly of those cereals with which we are in this country familiar, namely, wheat and barley. The sowing takes place in October and the harvest in March, generally ; but it varies with the latitude from the beginning of March to the end of that month, and even later.

The first crop in the ground is "chunna," called in Anglo-Indian parlance "gram." It is a pulse resembling the common vetch or tare in leaf, but much richer and more luxuriant, and giving a full round grain as large as a good garden pea. It takes most kindly to a thick clay soil, and requires little irrigation. It grows better in Bundelcund, in the black cotton soil, where it gets no artificial watering, than elsewhere. This grain is used greatly for feeding horses, and it is well adapted for that purpose.

It is also, when parched, largely used as food by the natives.

The wheat most commonly sown is a red-bearded variety; but there are several kinds in general use. Wheat is sown in drills. In the Doab, it is hardly ever found in land where artificial irrigation is not available. Unless the season is exceptionally wet, it must be watered three times at least, and it often takes as many as seven waterings; in fact, as a rule, the more water the better the crop.

In order to compare the fertility of land in India with that of English soil, we cannot do better than take wheat as a standard of comparison.

It is difficult, however, to get any accurate information as to the yield of crops in India. We can, indeed, ascertain easily enough, by actual experiment, the yield of any particular land in any one year. But no experiments have been made over an area so wide, or in so many consecutive years, as to give us a reliable average. By inquiry, on the other hand, we can learn a good deal; but knowledge obtained in this way, although in the main correct, is loose and vague. The persons from whom we seek it have all the inaccuracy and want of precision which belong

to uneducated men. Subject, then, to this drawback as to its accuracy, I would give a ton per acre as the average yield of wheat in good land, well farmed, and with ample irrigation. But in inferior soil, and with any want of water, the average will run as low as four hundredweight per acre.

Barley is also sown in drills; it is usually sown in the dry lands, where, on account of want of water, wheat will not flourish. *Ceteris paribus*, it gives a somewhat larger yield than wheat.

The cultivation of oats has been introduced by us. The superintendents of the Government studs have induced the neighbouring farmers to sow oats by giving them a small advance and taking the produce off their hands at so much per hundredweight, straw and all. In the parts of the country where this custom has not been introduced, oats are seldom seen.

As they are paid by the weight of the gross produce, the natives, with their usual ingenuity in such matters, have adopted the plan of sowing barley with the oats. They pick the ears of barley when ripe, leaving the straw, which they weigh out to the stud officials along with the oats.

These are the principal cold-weather crops on ordinary farms. There are vegetables of many kinds, and spices, and tobacco, which are grown by those classes that correspond to our market gardeners. It would be tedious to enumerate these products, which are only largely grown in the neighbourhood of towns. Tobacco is a valuable crop; the climate and soil both suit it well; and I believe experiments which have been made lately, under orders of the Board of Revenue, give hopes that the American varieties may be grown in India. It is a product to which attention should be drawn, as probably capable of improved and extended culture, and one which may eventually command a market in Europe.

In the class of products which are cultivated by the gardeners in the cold weather is the poppy. The culture of the poppy for opium is carried on by Government in the same way as that of indigo is conducted by the indigo planters. The officers of the opium department enter into engagements with persons who are willing to grow the poppy, and advance them so much per acre, stipulating to buy the opium at a certain rate. No one else is allowed to cultivate the poppy, and it is illegal for the

cultivators to dispose of the produce to any one but the Government agent.

The poppy-heads, when ready, are slit, and the juice which exudes is scraped off and collected in rude earthen vessels by the cultivator, who delivers it at the appointed time to the opium agent. The drug is weighed, and the account made up; if any balance remains due to him, after deducting the advances, it is paid to the cultivator. On the other hand, if the account is against him, he must sow again next season, or repay the excess.

The North-West Government has no concern with the opium department, which is managed entirely by the Revenue Board of Lower Bengal.

The proportion which the area of the autumn harvest bears to the area of the cold-weather crops, varies very much in different parts of the country. As marketable produce, the grains produced in the cold weather are far the most valuable, but they require irrigation. Hence, where there is little artificial irrigation, the autumn harvest will occupy as much as from seventy to eighty per cent. of the area. Where water is abundant, the area occupied by the cold-

weather crops will rise to fifty per cent., or a little more.

It remains to notice some important products which do not belong to either of these harvests, but remain in the ground the greater part of the year. I refer to cotton and sugar-cane.

It is due to the Manchester Chamber of Commerce, that the capabilities of India to grow cotton, and the great interest which England has to induce her to grow it, are as well known as any part of Indian affairs is likely to be known at present. It is, I believe, an undoubted fact that the cotton exported from India has improved in quality; and there is, in many parts of the country, a marked improvement in the care and manner of cultivation; but still the country cotton remains very far indeed behind the standard to which it ought to attain, and which it must reach if it is to command the English market.

The Indian Government has been strongly urged to take the matter up, and to effect, by whatever means, that improvement in the product which Manchester desires. Various courses have been suggested to it. Thus, it has been recommended by some that the land-

tax, as it is called, should be remitted in favour of land cropped with cotton. Others have, more practically, advised the appointment of Government inspectors, who should examine and certify to the quality of the cotton. On the other hand, objections have been raised to Government interference of any kind. Englishmen, as a rule, are so averse to any action of Government beyond what they conceive to be its proper sphere, that they forget that other nations are not of the same way of thinking. In the case of India, Government is the landlord. The use of the term land-tax, as applied to the Sovereign's share of the rent, tends to obscure this fact, that the Government of India is the landlord of the country; and except where, in the permanently settled districts, the responsibilities have been virtually laid aside, it is bound to the country and the agricultural classes by all the ties and responsibilities of a landlord. It is absurd, therefore, to say that the Government should not interfere in a matter which vitally concerns its own interests and those of its tenants. The only measure of interference in such a case is the good which can be done. But while, on the one hand, I would never deprecate action in this matter,

there is a kind of interference which I would entirely oppose. Any course of conduct which would leave the Government open to suspicion of its motives, or which, in the case of loss from a fall in the price of cotton, would render it liable, with any show of justice, to the charge of having encouraged speculation, is, I think, bad. For instance, if by persuasion, or by the remission of rent, or other means, the area sown in cotton were increased so as to cause the price to fall below a fair profit, the Government would be placed in a false position. In my view, therefore, any action which might, however improbably, lead to such a result, ought to be avoided. But from the distribution of good seed, the diffusion of knowledge regarding the sound culture of the plant, the appointment of inspectors competent to instruct the farmers, to value the cotton, and to prevent fraud, no evil results can be anticipated. Let Government, therefore, do what it can in this direction. In the North-Western Provinces, for some years past, good acclimatized seed has been largely distributed, and instructions for its use published. Statistics of the area sown, and the yield of each year, have been collected and published; and it is, I believe, proposed to intro-

duce the inspection of cotton, and a law for the prevention of fraud. In the Central Provinces, an officer, called the Cotton Commissioner, has been for some time at work, doing his best to promote the cultivation ; and he has, I believe, met with fair success.

The only question, to my mind, is whether more could not be done by private means than can be done by Government in this matter. To one ignorant of the state of the agricultural classes, and the nature of their holdings, it may appear strange that the supply, both in quality and quantity, does not answer more speedily to the demand. But the fact remains that it does not, and will not, answer. However Manchester may cry out, the Indian peasant, with his six acres of land, will sow only one with cotton, unless he is offered a very high price. If the planters, in the matter of indigo, and the Government, in the case of opium, were to sit quiet, and trust to the action of the laws of political economy, very little plant or drug would they see. Why should it be otherwise in the case of cotton ? There is no reason why men on the spot should not get the peasants to grow cotton of a quality to suit them, and at a reasonable price, if they would follow the

example of the planter and the opium agent. But, as I understand, Manchester would not like this, because she would then have to share the risk. She wishes to be supplied with cotton, without having to stipulate beforehand for the price. No doubt, as a matter of immediate self-interest, Manchester is right. It is far better to throw the risk of any fall in price on the producer of the raw material, so far as may be. Thus, in the linen trade, the manufacturer has only to make his wants known, and to send agents out to buy for him. If India were in the same advanced state as the flax-producing countries of Europe, doubtless the same means would suffice in the one case as in the other. But she is far behind these countries, and is under the further disadvantage, that she is working for manufacturers who are removed by an immense distance from her.

It will, I suppose, be said, and, no doubt, to some extent truly, that the cotton manufacturer is ready to go to any length which will be justified by his own interests. Fortunately for him, there are other countries besides India where cotton can be grown. It will, therefore, only be in the last resort that the manufacturer will go out of his

path to meet the Indian farmer. We may, therefore acknowledge that no active measures, and no immediate outlay, can be expected or justly required from Manchester; and we may take it for granted that the Indian peasant, if left to himself, will take some generations to arrive at the point desired. But there is a third party whose interests are at stake in as great a degree as those of either of the others. Depending, as it does and must do, on the increase in the land revenue to meet part of its growing expenditure, no one is more concerned in the cotton question than the Government of India. If, therefore, Manchester can point out any way in which the Government can legitimately work, without itself joining, or appearing to join, in the speculation, let her declare it. The Government of India has for many years given its attention to the subject, and is not likely to be supine now.

I have said nothing on the state of the roads and railways in the North-Western Provinces in connection with this subject, because that is a matter which would require separate mention.

After all, this cotton question is an agricultural one. At present, the mass of cultivators are wedded to their ancient ways. They throw

in the cotton seed anyhow ; often, unless when the ruling prices are high, into inferior ground. When the pods burst, they let the cotton fall and lie on the ground before they trouble themselves to collect it, and they take no pains to keep it clean. If you give them good acclimatized seed, and tell them how to grow it, they will promise you fair enough. When you come to inquire about the crop, they will tell you, with an air of conceit at their own sharpness, that they mixed the good seed with their own country cotton, and sowed all in the good old way, lest the new-fangled seed should play them false.

In a good crop from country seed, it is generally held that two-thirds of the gross weight of the produce will be seed, and one-third cleaned cotton. A yield of four hundredweight of uncleaned cotton per acre is esteemed a good crop. It is hardly necessary to add that the indigenous cotton plant of India is an annual, and gives only one crop.

In rows at wide intervals among the cotton, it is the common practice of the North-West to sow the "Urhur," or Dhalrush, the *Cytisus Cagan* of the botanists.

The Urhur grows into a large bush, more or less luxuriant as the season or the climate fa-

vours it. It grows up with the cotton plants, but does not give its harvest until some time after the cotton has been gathered. It has a yellow blossom, resembling that of the Gorse, both in colour and shape. The seeds form in a pod. They are largely used for food. For this purpose they are well parched and split, and when boiled into a mash, which is known as *Dhal* in kitchen parlance, they are eaten as a relish with rice, or unleavened bread.

The leaves and finer twigs of the plant are chopped up to make fodder for cattle and sheep; the thicker stalks are used to make linings for wells, and have lately been burnt into charcoal, and used in the manufacture of the finer kinds of gunpowder.

The Urhur suffers from frost, which scorches it up; and where frosts are frequent, it is seldom sown.

Second only to cotton in importance and value is the Sugar-cane.

The ground is well prepared during the cold season by repeated ploughing, and, if necessary, by irrigation. In the moist countries of Rohilcund, and the Terace, and in other places—for instance, in the lowlands along the Ganges—where water is near the surface, and the soil

is naturally damp, irrigation previous to ploughing is seldom needed; but, in the Doab, it is generally necessary to begin by drenching the field well with water. It is then thoroughly ploughed, and manured as much as possible, and worked until the ground is as soft, and pulverized as a garden bed. In March, the cuttings of cane, about six inches long, which have been preserved from the former crop in pits, are put in by the hand. From that time until the cane is cut, sometimes nearly a year after, incessant labour is required to keep the ground clean, soft, and sufficiently moist. The cane is generally ready to be cut about the middle or end of November; but the time of cutting it depends greatly on the amount sown, and on the labour at the cultivator's command. It must be taken, as soon as it is cut, to the mill, and crushed before it begins to dry. In districts where much cane is sown, the mills are four months, or even longer, in work; day and night in some places. Some of the crop will therefore be left standing until February; and it must be carefully tended and watered, if necessary, to prevent it from being dried up. A busy cane country is a curious sight after nightfall, with its smoke and fires.

Sugar-cane ought to be sown in land which has been fallow during the previous year. But even the best cultivators, if they can get manure and water, will take a crop of maize, and sometimes even of cotton, off the land which is to be planted with cane in March.

Sugar-cane cultivation is seen in perfection in the Mecrut district, under the industry and skill of the Jâts, a tribe famous as agriculturists. The fields there resemble groves of small palm-trees, the cane is so tall. Every four or five canes are tied together, to keep them from bending or hanging over, and the interstices are kept beautifully clean and regular. In Rohileund and other places, where the cane requires less care and labour, I have never seen it in such perfection.

The sixth of an acre of cane can generally be bought as it stands for ten rupees, or one pound sterling, and the rent of cane land will average about fifteen rupees, or thirty shillings per acre. The profit of the crop may therefore be put down at four pounds ten shillings per acre, or thereabouts. But the greater part of this return is only remuneration to the cultivator for his own labour and the toil of his cattle. Hence, while the landlord will take half the crop of

wheat or barley as his rent, he is contented to receive a fourth of the value of the sugar crop.

But it is only in very rare cases that the cultivator sells his cane standing. He crushes it, as a rule, in a mill which he owns either in whole or in part. In some parts of the country, he continues the manufacture, and sells his produce to dealers, in the shape of molasses or very coarse sugar. In other parts, he stops after crushing the cane, and sells the juice to traders, who continue the manufacture. Where the farmer is also the manufacturer, it is a sure sign of prosperity, and a proof that he is in easy circumstances. On the other hand, where we find the cultivator selling the juice, we generally find that he is in the hands of the money-lender. He has taken advances on the security of his crop, and has bound himself to deliver the produce at a fixed price. He has signed a bond for double the amount advanced; and if he rebels against the usurer, he will be sued on the bond, and sold up.

Where the cultivator is also the manufacturer, it is difficult to arrive at any estimate of his profits. The following is an estimate given to me by a native farmer:—If the crop is a fair

one, the produce of the sixth of an acre will occupy the mill one day and night, and will produce about 400lbs. of molasses, which will sell on the spot for about fourteen rupees. This would give the sum of eight pounds and ten shillings as the value of an acre of manufactured produce.

If, as I have said, an acre of cane as it stands is worth six pounds, this estimate leaves only two pounds ten shillings to pay for the manufacture. It is only, however, in very exceptional cases that I have known the cane to have been sold standing, and then only in small quantities—enough, for instance, to give a meal to a few elephants. When a man has his mill in working order, and all preparations made for the manufacture, he will not be willing to sell a small portion of the raw material at a price much below that of the manufactured article. We must remember this in considering the estimate, which I give for what it is worth.

The mill in common use in the North-West Provinces for crushing the cane is of the rudest kind. It consists of a large trunk of a tree, which is buried about six feet into the ground, and rises about three feet above it. This is hollowed out, so as to form a mortar; and at

the bottom of the mortar a hole is drilled, through which the juice of the cane can run into a vessel placed on one side to receive it. A long upright beam is placed as a pestle in the hollow trunk. To the lower end of the pestle, and at such a height above the mortar as to allow it to work freely, is attached a boom of wood, to which the bullocks are yoked, and by which the pestle is turned. The centre of this boom is joined to the top of the pestle by another spar of wood. The pestle and the two spars thus form a triangle, one side—namely, the pestle—descending into the mortar, and the base being extended, so as to form a yoke for the bullocks on whose necks it is supported. When the bullocks are yoked, the driver seats himself on the boom between the bullocks and the mill, and thus adds his weight to the pressure of the pestle. He then drives his cattle round and round, while another man feeds the mill with bits of cane about five or six inches long.

This mill, though primitive, is very effective; and the cane is thoroughly crushed, and leaves it as dry as tinder. A modern mill was, I believe, once started in Rohilcund, and worked for some time. But the cane, after passing through it, was gathered by the natives, and

put through one of their own mills with profit.

Of course the time occupied in crushing cane in this way is very long. But time is of little comparative value in India; and until the price of labour rises considerably, the old mill, or *kōlōo* as it is called, will probably hold its own.

The cultivation of the cane, and the manufacture of sugar, are a source of great profit to the agricultural classes. In the Meerut and similar districts, where on many estates ten or fifteen per cent. of the area is under sugar, the rent is generally paid by the proceeds of sugar and cotton.

It is curious, and shows the demand for sugar, that good sugar in Northern India, where it is grown and made, and pays no duty, is sold at nearly the same price which it fetches in England. The consumption of sugar among the native population is very large. Men, women, and children are, one and all, very fond of sweetmeats, and eat quantities of them. The best refined sugar sells for about sixpence per pound at the Rosa Factory, in the Shahjehanpore district, which is the only sugar manufactory conducted by Europeans in the North-Western Provinces. How it is that more has not been

done by English enterprise in this direction, I do not know. But it would appear as if the profits to be made were not large enough to repay the cost of European skill.

Before closing this section, I would say a few words on the subject of Agricultural Statistics. The frequent famines, which have of late desolated parts of India, have shown the value of information regarding the amount of food annually produced. Had accurate knowledge of the yield of grain, and the probable amount in store, existed, the evils of the Orissa famine would probably have been mitigated. For this end, inquiries should be directed to ascertain the area laid down in each year under each kind of crop. In the North-West Provinces, information of this kind can be obtained with some approach to accuracy, through the Village Accountants—functionaries who keep the rent-rolls and maps of every estate in the Province. These persons have no difficulty themselves in obtaining the knowledge which we require. But it is a matter of considerable toil to compel them to take the necessary amount of trouble. And unless they have the fear of a close and strict supervision over them, they will sit in their huts, and fill in the statistics out of their own heads. However,

if they are properly supervised, they can be made to do their work well enough, and a return of the area under each crop can be obtained for each harvest. If, however, we go beyond this, and demand to know the actual yield in every case, we at once enter into the region of speculation and conjecture. The farmers themselves hardly know the actual yield. They will not trouble themselves to inform the Village Accountant, if they do know it. It generally ends by this functionary putting down an imaginary amount. And returns thus compiled are worse than useless.

The Government of the North-West Provinces have, for a few years past, published a series of statistics, purporting to show the profits accruing to the cultivator, and the rent enjoyed by the landlord and Government respectively, in each year. I believe these returns to be valueless, as a comparison of those of one district with the returns of another will show. And when we see, that in districts which have been lately assessed by Government, the statistics demonstrate, that the profits from the land are divided with mathematical exactness in the prescribed proportions, we need hardly doubt that these returns are a better reflex of the opinion

of the compiling officer, than of the actual facts. These attempts should, at any rate for the present, be confined to ascertaining the area of each crop. With this knowledge accurately obtained, experts can readily form an estimate of the produce, near enough to the truth for all practical ends. To aim too high in such a matter is to miss the mark.

## IV.

### ON 'IRRIGATION.

IRRIGATION is the soul of agriculture in the North-West Provinces; without it many crops are impossible, and all are precarious. For want of it, famines are certain, and periodical visitations; and the country is, from time to time, reduced to poverty and desolation. The huts of the peasantry, emptied and unroofed by one famine, are hardly repaired and tenanted again, before another has come. The fields, thrown out of cultivation owing to one season of drought, have scarcely been brought again under the plough, before another dearth lays them waste.

The subject of irrigation is so closely connected with the welfare of the people, and so interwoven with questions of the rent and assessment of land, that I may be allowed to give some space to it.

Irrigation, then, is of three kinds, namely, from wells, from canals, and from tanks or ponds.

To begin with irrigation from wells. It is a kind provision of Nature that the greater part of this region, which so needs a supply of water besides the rain, is bounteously gifted with springs at various depths below the surface. In the countries of Rohilcund and the Teræe, the water is so near the top that it can be easily lifted with the lever and bucket which is familiar to all travellers in Egypt. In the low lands, along the Ganges and other rivers, water is also found close beneath the surface. In the Doab, the distance to water varies very much. It is seldom less than fifteen feet, except in the low grounds near the rivers; and in wells used for agriculture not often more than sixty feet. This, at least, is the result of my experience, and I have measured a large number of wells. The common depth to the water, I have found to be between twenty and thirty feet. The water appears to be nearest to the surface in the centre of the Doab, and to be farthest from it in the high tracts of land on either side, which overlook the Ganges and the Jumna.

In Bundelcund the wells are of great depth. Water is seldom found in the Banda district nearer than one hundred feet. Springs are few and uncertain, and the cost of wells very great.

Owing to these circumstances, and to the large expense of working a well at such a depth, irrigation from wells, except for garden cultivation, is unknown.

• Well irrigation is to be seen in perfection in the Doab, from which part of the country I will draw my account of it.

There are two methods in common use for lifting the water. If the water is very near the surface, and only in small quantities, a long pole is used as a lever, supported on a heap of earth as a fulcrum; and the water is raised in a common earthen vessel attached to the end of the pole by a rope. But when the well is deeper, and the supply of water ample, bullocks are used to lift the water with a large leathern bucket. For this purpose, the top of the well is usually raised a few feet above the level of the field; and, running down from it, on one side, is cut a steep incline as a road for the bullocks. A stout rope attached to the leathern bucket works over a rude pulley, which is supported above the well by two stout posts. The bucket is let down into the well and filled. The bullocks come up to the top of the incline, the end of the rope is hooked on to their yoke, and away they go down the incline, bringing the

bucket up to the top. As the bucket comes up, a man standing by the pulley overturns it into the channel which conveys the water to the fields. The bullock-driver then unhooks the rope from the yoke, and while the empty bucket again descends into the well, the bullocks leisurely come up the incline, and are ready to repeat the process again. In some parts of the country the men sing a rude chant or refrain, which serves the double purpose of making their labour less dreary, and of guiding the bullocks in their work. The lad who drives usually takes a seat on the rope as the bullocks go down the incline, and thus saves himself the walk, and by his weight aids in raising the bucket. The work is hard, and the men as well as the cattle employed require to be well fed. It is usually held that it costs two shillings a day to work a well in this way. As yet no machine adapted to the wants of the country has been found as a substitute for this primitive method. Something very cheap, and so simple as to be capable of being repaired by the rudest blacksmith, is what is needed.

The water is conveyed from the well to the crops by small channels made along the margins of the fields. The field which is to be irrigated

is divided with little ridges of earth into small squares of a few yards each. The object of this is to distribute the water equally over the surface, as it would otherwise leave the higher parts dry, and collect in pools in the low places. As each little square is filled, a small opening is made in the ridge to let the water flow into the next division, and the supply of water is thus kept under command, and waste as much as possible prevented. For well-water is a precious commodity, and not lightly to be thrown away. The cost of working the well falls entirely upon the cultivator of the soil. The original expense of digging the well is defrayed,\* sometimes by the owner, and sometimes by the cultivator. Before entering upon this question, it is necessary to notice a distinction between two kinds of wells—a distinction connected with some important questions of tenure and rent.

Where the subsoil is firm and strong, all that is needed is to dig the well, without constructing any lining or walls of masonry. Only that part of the well which is under water is supported or lined with a cylinder of wood, or of brushwood, or of twigs interlaced and woven together. If the subsoil is very firm, and the spring of water ample, the wooden cylinder is

used. If there is much sand in the substrata, the sides of the well are apt to cave in, until, gradually, the top is undermined, and the whole thing collapses. For such wells, the cheaper lining of twigs or brushwood is commonly employed.

When the subsoil is shifty and uncertain, or when a very large well is wanted, and when the funds are available, the well is built of substantial masonry. In the Doab, the walls of the well are usually built up, and sunk by excavating the earth from beneath them, until a good foundation is obtained, and the required supply of water reached. In Bundelcund, owing to the great distance of water, the uncertainty of finding it, and the rocky substrata often met with, the reverse method is adopted. The well is fully excavated, and the masonry commenced from below.

Wells which are made without masonry are called, in common parlance, "*Cutchā*," or makeshift; while those which are solidly built of brick and mortar are called "*Puckā*," substantial, or permanent.

It is important, as I have said before, to note this distinction. The first thing which arises out of it is this, that the makeshift or tempo-

rary well is dug by the cultivator at his own expense, while the permanent well is built always by the owner of the soil.

The possibility of digging temporary wells is looked upon as one of the natural attributes of the soil, and is considered in settling the rent. Land where such wells can be freely dug is charged as irrigable, and it devolves upon the cultivator to dig and use such wells, as much as it devolves upon him to plough the land and sow the seed.

With masonry wells, however, it is far otherwise. As the outlay of a large sum on permanent improvement of the soil might be held to argue a greater interest in it than that of a mere tenant, the building of masonry wells on land has always been adduced and accepted as *primá facie* proof of ownership of the soil. The mere receipt of rent is not always in India proof of ownership; as there is, in many cases, apart from the owners and the cultivators, a class of persons whose interest in the soil is confined to the receipt of a portion of the rent. It is probable, therefore, that it is natural to the people, and a consequence of the prevailing tenures, that such outlay of capital should be held to argue ownership of the soil, although

I have met with men who consider the feeling to have been rather created by the action of our courts. However that may be, it is generally received, at present, that such outlays of capital as are required to plant groves and to build wells, argue a permanent interest in the soil, and can be made by the owner alone, or with his consent. And actions to evict a tenant, on the ground of the breach of this custom or common law, are held good.

The expense, then, of building masonry wells falls entirely on the landlord or owner of the soil; and, where he builds such wells, he is entitled to raise the rents of the lands irrigable from them.

It will be seen, therefore, that the temporary wells are dug by the cultivator, and that he pays more rent for ground in which he can dig them. The permanent wells, on the other hand, are built by the owner of the soil; and not only does the cultivator not build them, but he is forbidden to do so, under penalty of eviction. It is important, therefore, not to confound the two kinds of wells.

The cost of digging makeshift or temporary wells is very small, varying from five shillings, or even less, to two or three pounds, according

to the depth of the well, and the kind of cylinder used to line it. The expense of building masonry wells varies, of course, with the depth, diameter, and other conditions of the well. But for such wells as are commonly used for agricultural purposes, an expenditure of twenty pounds is sufficient. Fifty pounds will build a very good well.

For the owner of the soil, there is no more profitable investment than the construction of such wells. He not only gains a direct return for his money from the increased rent, but, indirectly, he profits much by the greater security against drought, and the greater stability of his income on that account.

Questions sometimes arise as to the age of wells. The temporary wells are not always as short lived as their name would imply. Where the subsoil is good, it is very common to find wells of this kind which have lasted for thirty years and more, as the maps made at the last thirty years' settlement of the land revenue will prove. I know of many places in which wells of this kind have existed before the memory of the oldest inhabitant. In other places, where there is a bad subsoil, the wells fall in every two or three years, or even annually. The age

of a well can be judged by its appearance, and by the presence or absence of the traces of old wells in the immediate neighbourhood.

It would be of value to ascertain the exact area which could be irrigated from a well, in order to estimate the profits which are to be derived from sinking wells, and also with a view to compare the cost of this kind of irrigation with the expense of other kinds. But so many conditions enter into this problem, that it is impossible to arrive at any solution which shall be generally true. The depth of the well, its position, the nature of the soil over which the water has to pass, the supply of water in the spring, the efficiency of the men, cattle, and gear employed—all these things have their effect on the area which can be watered in a given time. A good authority has laid down fifteen acres as the average for each well. Where there is a good supply of water this will, I think, be found near the average, although few individual wells may exactly conform to it; but where the springs are not good, I do not think each well can supply more than ten acres on an average in the season. The cultivators all say that you cannot exhaust a well without spoiling the spring.

Irrigation from tanks or ponds is in most parts of the North-Western Provinces of small extent; wherever, indeed, water will remain, in pond, marsh, or artificial tank, it is greedily seized upon when the time for using it comes. But artificial reservoirs or tanks, such as exist in Madras and Central India, are not common; and, owing to the facility for making wells in the Doab and Rohilcund, they are not needed so much.

Natural streams and small rivers, whenever they retain any supply of water during the dry season, are made available by such engineering skill as the people possess; dams are made across them at certain places, and the water forced or baled out into the fields. In Rohilcund, there are many streams available for this kind of irrigation. At present, as the right to make the dams is held as a privilege by the occupants of certain estates, these resources are not made the most of. The public good is often sacrificed to private animosities and piques, and the water supply is wasted for want of proper skill or sufficient expenditure. All this will, I believe, be rectified at the settlement of the land revenue, which is now in progress.

The water is generally baled or lifted out of the ponds into the fields in a basket; a channel is cut, at the low end of the tank or pond, so as to let the water flow into a small pool, four or five feet wide; a couple of ropes are attached to each side of the basket, and are held by two men, one on either side of the pool. The basket is then dipped into the water, filled, and pitched forward with a regular swing, emptying its contents into the field above. When the water lies very low, the same process has to be repeated two or three times, until the level of the land to be irrigated is reached; the work then becomes very laborious and costly. When there are three or four couples at work baling the water, each a stage above the other, they keep time and swing all together, like the crew of an eight-oar.

I now come to the subject of canal irrigation, the importance of which is very great; indeed, with the Orissa famine, the famine of 1861, and the late scarcity and partial famine in Upper India before us, canal irrigation may be said literally to be a question of life and death. It is of moment that such a question should be well understood in its bearings on the welfare of the people, as well as on the interests of the

owners of land, and of the Government, which is the landlord in chief.

There are two grand canals in the North-Western Provinces—the East Jumna Canal, which was originally made by one of the Turkish emperors, and has been improved and restored by us, and the Ganges Canal—a work all our own—one of the greatest gifts ever bestowed on any country by its rulers. With the character of these canals as engineering works it is beyond my province to deal. It will suffice to say that the Jumna Canal is a stream about as large as the New River, which supplies East London with water. Its banks are beautifully planted, and it is a great source of wealth as well as an ornament to the country through which it passes. While the term “canal,” with its associations in this country, is hardly applicable to the great Ganges Canal, still, in its infancy, it is covering whole counties with fertility and wealth. When it reaches its full growth, I believe the brightest dreams of its projectors will be surpassed.

But it is of the economic use of these works that I wish to speak—how they may be best made to serve the agricultural classes, and to benefit the whole community.

The value of irrigation in India may be best understood from the fact that, in round numbers, it doubles the rent. Land which, if dry, could pay only ten shillings an acre, will pay a pound an acre when it is irrigated; and not only that, the cultivator has to work the well at his own cost, and the increase in the crop enables him to do this, and to live better, as well as to pay double rent. Irrigation means not only a ton of grain instead of four or five hundredweight, but also wheat, sugar, indigo, and the like, instead of barley, and vetches, and millets—in fact, it means wealth and comfort, instead of poverty and starvation. It is, then, of great importance, not only to make canals, but to use them rightly. Let us, then, see how this can best be done.

The supply of water from a canal is distributed through the country by branches radiating from the main stream, and from these branches, again, smaller channels strike out in every direction, from which the cultivators take the water into their fields. When the level admits of it, the farmer has only to open a way for the water to run; in other cases he has to raise it, as he would from a tank or pond.

It is clear that it depends on the distribu-

tion of the water whether the greatest possible good is derived from the canal or not. At first, the matter was very imperfectly understood. There appears to have been no great principle laid down to guide the engineers in the distribution of the water. Each officer in charge of a section of the canal did what seemed right in his own eyes; branches were taken along valleys, and through districts which needed drainage rather than irrigation; in other cases, channels were run right across the natural drainage of the country, and did as much harm, by causing floods in the rainy season, as they did good by affording irrigation in the dry weather. The general idea seemed to be that, so long as channels were made, it was not much matter how or where they were made. Some were made into which no water would ever run; many were made through those parts of the provinces most liberally supplied by Nature with springs and wells, where, except in years of great drought, they served no purpose but to save the cultivator from part of his toil.

At first, indeed, the mistake was made of supposing that canals were to supplant wells. People in the country have told me of orders by the canal officers forbidding the use of wells, of pay-

ment exacted on the ground that the water in the wells was increased by the canal, and of cases in which the canal officers had wilfully, and of malice aforethought, run their distributing channels through as many wells as they could. All this, although resting probably on a very slender foundation of facts, points to the truth, that the canal officers looked upon wells as their rivals, and did all they could to oust them; they were, in fact, under pressure to show a good balance sheet, and a larger area under irrigation. If they had taken the water where it was most wanted, to tracts where there were no wells, and where irrigation was almost unknown, their wishes would have been soon and surely realized; but they went into some of the best watered provinces in India, and began a new system of irrigation. Naturally they had up-hill work. It took some little time to coax the farmers to adopt the new water; and, seeking a market, instead of commanding it, the canal officers had to offer their water at a very cheap rate. The result has been, that, in some of the most fertile districts, where well irrigation was most abundant, the wells have been superseded by the canal. Innumerable wells are lying idle, and falling into decay from neglect or disuse.

Where the springs were near the surface, the percolation from the canal has made them more abundant; the water in the wells has risen several feet, and in some places, as in the Saharunpore district, the increase of moisture is so great as to be absolutely injurious. While, then, the canal finances have suffered from this competition with wells, it cannot be said that any benefits have accrued to the people which would counterbalance the loss to the canal. It may be taken as an axiom that, except in times of great drought, an acre irrigated from a well is at least as productive as an acre watered by the canal. It is clear, therefore, that there is no gain to the country at large from the substitution of the one system of irrigation for the other, unless canal irrigation could be made universal. On the contrary, if the canal water could be given to the tracts where wells are few, or do not exist at all, it is plain that, to withhold it from such tracts, and to give it to those which have wells, is to deprive the country of so much additional irrigation. The only gainers by the substitution of canal for well water, have been the cultivators of the soil. Upon them, as I have said before, falls the expense of working the wells. Instead of having to toil at this duty—themselves and

their cattle—from sunrise to sunset, and sometimes all the night through, a lad can go now with a spade and let in the water where it is needed, from the canal channel. And for this boon, until very lately, the charge per acre was almost nominal.

Nor is the labour the only saving brought about by the canal. It requires a good stock of strong, well-fed cattle to keep the wells working. After he gets the canal, the cultivator no longer needs the same number of bullocks; indeed, he can buy a few to do his ploughing, and sell them again when it is done. There is no doubt, then, that the expense of production is lessened by the use of canal water; and although, in the nature of things, this saving would in time be appropriated by the owner of the soil, hitherto this has not been done. The rent of land irrigated from the canal has not risen above that of land watered by wells.

The cultivator, then, has alone benefited by the distribution of canal water in the countries which have wells. But, on the other hand, the advantage enjoyed by him is not without its drawbacks. Wells require a large live stock, and great labour. The soil reaps two benefits from this. There is more manure saved from burning, and the tendency to overfarm is checked.

If the farmer has to work at his well, he cannot sow more sugar or wheat than he has time to irrigate. But when he is relieved from all well duty, he has nothing to keep him within bounds. He sows more of these crops, and, at the same time, he has less manure. I believe this is the true reason why crops in canal land show a tendency to deteriorate—a result often attributed by the people to the quality of the water.

Is it to be maintained, therefore, that for a doubtful benefit to some cultivators, the canal water is to be misapplied? I do not believe that any one will uphold the system, or that it would ever have been originated had attention been directed to the subject at first.

It should be held, then, as a maxim in canal irrigation, that we should supplement wells, not rival them; that we should first irrigate those tracts which have no water, and give only our surplus to those tracts which have.

If by this course the greatest benefit will be given to the whole country, and the largest area of irrigation be obtained, no less will it bring in the greatest income to the canal. This has been so clearly demonstrated by others, that I believe nothing but the difficulty of receding can uphold the present system. I am ready to acknowledge

that this difficulty is very great, and renders any alteration in the working of the canals and channels now existing very hard to bring about. It is true, nevertheless, that a mistake has been committed, and it would be as well not to perpetuate the mistake in future works, or, in the extension of the present.

.. In order to show the financial side of the case, it may be stated broadly that the value of land in Northern India depends upon the means of irrigation available, and that irrigable land pays double the rent of land which cannot be watered. It may be observed, also, that this proportion of the rents of the two descriptions of land has been fixed by experience and calculations drawn from well irrigation.

When irrigation is introduced into an estate, or is extended, it depends upon the custom of the country regarding rents whether the increase is immediately received by the landlord, or not. If the rent is a share of the actual crop, or the money value of a share of the estimated out-turn, it is clear that the increase of rent is immediate. If the crop has been doubled by irrigation, the landlord's share, or the rent, is also doubled. And the same is the case where the rent is charged upon the area irrigated—so

much for each acre irrigated, and so much for each acre not watered. And also where the nature of the crop determines the rent—where sugar pays so much per acre, wheat so much, and so on—the rent rises immediately. But in cases where rent is paid in the lump, the increase, though no less certain, is deferred. This much being said, it will be readily understood that where land, previously irrigable from wells, is now watered from the canal, the landlord expects and obtains the same rates of rent which he before enjoyed: and also that if the area of irrigation in his estate is enlarged, he will receive, in many cases immediately, the higher rates of rent for the newly watered land. And it is clear that, if we wish to sell our canal water in estates where wells exist, or are possible, we must limit our charge to such an amount as will leave the cultivator able to pay the same rates of rent as were paid by him when he used his well. Theoretically, we might, perhaps, exceed this limit in those estates in which the subsoil requires the use of masonry wells. The landlords of such estates, if they had not already made the outlay, might be willing to concede so much to the canal, as would cover the interest of the capital which they would otherwise have to

lay out on wells. As the canal, too, is a better safeguard against drought than wells, the landlords generally might be willing to give us something on that account. But this is more theory. In real life we can never, even if we would, work things with such nicety. Practically, we should find ourselves compelled to sell the water at such a price as would leave the cultivator able to pay the customary rate of rent. \*In tracts of country where well irrigation is plentiful and common, we should not be able to get more for our water than it costs the cultivator to raise water from his well. Taking everything connected with the canal into consideration—the ready money payment, interference and exactions of underlings, fancied inferiority of the water, &c.—we should probably have to keep even below this limit.

But if we go into a tract of country where there is no irrigation—if we go, for instance, to take an extreme case, to the Banda District, where water, when found at all, is one hundred feet below the surface, where a well costs a hundred pounds, and irrigation from this source is impossible—what limit is then put to our charge for water? Clearly, so long as we do not diminish the present rents, the landowner has

no right or power to interfere. Whatever the cultivator is willing to give we may take. Practically, therefore, we shall be able to get a much higher price for our water here than in those places where we had to rival wells. The land, which formerly produced a precarious crop of barley or grain, will give a certain crop of wheat, sugar, or other valuable products. After leaving the cultivator a fair profit, the increase, which would go to the landowner as rent, if the change had been produced by his capital or by natural causes, will come to the canal.

It may be said that, unless he is allowed to share directly, the landowner will refuse permission to irrigate. I believe this is entirely an English idea, and has been imbibed by the landowners of Lower Bengal from Englishmen. It is quite inconsistent with the tenure of land in India. The ruling power is landlord. If the Government increase the value of land by their own outlay, they are entitled to reap the benefit—just as the landowner is entitled to benefit from his own outlay. The landowner has no more right to forbid the Government from making wells or canals, than the cultivator has to forbid the landowner. The idea is preposterous, and should not be listened to. We

have the undoubted right to make canals, and to charge for their use so much as will remunerate the nation for the outlay. We have no right to enrich the class of landowners at the public cost.

In practice, however, the Government would never run up the charge to the highest pitch, nor would they permit others to do so. Still, there is a very great interval between the maximum price obtainable, and a nominal charge which would allow the landowner to double his rent.

The landowner would in any case be a great gainer by the permanent security given to his income; and he would, probably in every case, eventually receive a considerable addition to his rent.

To sum up, then, it appears that in the distribution of water from a canal, we should not seek to supersede well irrigation—Firstly, because by so doing we are wasting water and diminishing the area which can be irrigated; Secondly, because by this course we compel ourselves to sell our water in the cheapest market.

But it will be urged, and truly, as I have before hinted, that the canal alone is a safeguard

against drought. When the drought is prolonged, the springs will fail, and where then are your wells? This is true; and the argument would be a good one if we could supply the whole country with canal water. But this we cannot do. We can only offer irrigation to a very limited area. Are we, then, to waste our water for four years, to save the wells in an anticipated drought in the fifth? Beyond question, the greater the area we can irrigate in the years of plenty, the richer we can make the peasantry, the larger our crops of grain in the good years—the less will the famine press on all in the year of drought. Until, therefore, we have supplied the means of irrigation to those tracts which Nature has left without water, we should not endeavour to throw the wells out of use. Although there is no doubt that canal irrigation can and will be widely extended, still it is probable that it will never reach more than a part of the country. And even if we suppose the certainty of canal irrigation becoming universal, still this can only be accomplished at a period so distant, as to leave the force of my arguments unaffected.

While, then, the Government should strain every nerve to push canal irrigation into the dry

tracts, I believe that efforts should likewise be made to increase the wells in those countries where irrigation from this source is possible.

It has always been the practice of the Government of the North-West to advance money free of interest to landowners for the purpose of making wells. These advances are payable by instalments; and all *bonâ fide* applications of this kind, backed by the officer of the district, meet with immediate attention. As the revenue settlement is for the most part for a term of years, the Government is amply repaid for advances of this nature by the improvement in the estates. This appears to be the best way of promoting well irrigation. It is very hard to superintend a large number of widely scattered works. If the Government were to attempt to build the wells through the agency of their own servants, the work would be very costly, and also very unsatisfactory. It is far better to get the people to do it themselves, by advancing the money to them. The only thing required is, that the landowners should be well informed of the terms on which money is advanced, and should be invited to avail themselves of it; care being taken at the same time, by the English officer of the district, that the money reaches their

hands intact, and is spent on the work for which it is given. With regard to canals, there has been great discussion on the question whether they should be made by the Government or by companies. Much that has been said against their being undertaken by Government is beside the question. Supposing that there are companies ready and willing to perform the work, the only thing to be decided is whether the work will be done better by the one than the other, and whether more benefits will accrue to the nation at large from the one course than from the other. As to the opinion which formerly held some ground, that Government should not interfere with private enterprise in such matters, it hardly needs refutation now. Prejudices exist on this subject in England; but thanks to the mismanagement of the railways, and the ingenuity by which they have combined the greatest loss to the public with the least gain to themselves, these insular ideas are gradually clearing away.

The Government of India, being supreme landlord, has to decide whether it will improve its own estate at its own cost, and reap the whole advantage, or whether it will allow others to do the work, and content itself

with the indirect gain. I should think no landlord who had the means would hesitate for a moment; and if he had not the money ready, he would raise it on the security of his estate. The Indian Government, unfortunately, have not got the money in their treasury, but they have good credit, and they can raise the money at 5 per cent. Why, then, should they employ a company to raise the money and to do the work? It is probable that any company which comes forward will ask for a guarantee of 5 per cent. So far, then, as any immediate saving to the treasury goes, or any escape from a fresh loan, it is only in appearance. In the one case, the Government will pay 5 per cent. interest on the capital, and will receive all the profits; in the other case, Government will pay 5 per cent. interest, and will receive no profits. In the one case, doubtless, the Government might lose the capital, or part of it; in the other, they could only lose the 5 per cent. But in the case of any well-considered and well-managed scheme of irrigation, it is folly to talk of loss.

The only question, then, is whether the work will be done better by a private company. I think we may safely answer this in the negative. A private company is no guarantee for good

work, as the doings on some of the Indian railways will prove. Nor is it any guarantee for cheap work. The cost of masonry on the railways is not less than the cost of similar work by the Public Works Department. In the case of irrigation works, moreover, where the land revenue is more or less affected, and questions of compensation, and the like, are sure to arise, there is every reason for keeping the management in the hands of Government. The whole thing, too, should be conducted in a large imperial way, with a primary regard for the interests of the people; and this is more likely to be done by Government than by a company. As to the agency, the Government have at their command a body of men whom they can, if necessary, increase—the Royal Engineers and the officers of the Public Works Departments; a body who, for all qualities necessary to the supervision of such a work in such a country, could hardly be equalled by the staff of any private company.

I hope, then, that, as a matter of public policy, in order that the work may be well done, the nation may be most benefited, and the revenues increased, canals for irrigation will be undertaken and managed by the Government alone.

Another question connected with canal irrigation arises, as to the best way of charging for the water, and it is one of considerable difficulty. The imperfect nature of the head works, and the want of control over the water in the Ganges Canal, have hitherto rendered a charge by measurement of the water impossible. The method at present followed, is to classify the different crops roughly, according to the amount of irrigation required by each, and to charge a rate per acre, varying with the class of crop. This appears to be the best method feasible at present. But it is a very objectionable one, as it involves constant measurements and scrutinies, and interference on the part of the canal underlings, which is bad, and renders the management unpopular. When the canal is remodelled, this defect will, I believe, be remedied, and the water will then be charged for by the cubic foot. This should be provided for in all new canals. Until it can be carried out, it might be possible to strike out an average rate, which would cause no loss to the canal, while, except in very isolated cases, it would not affect the cultivator.

But this, as well as some other reforms connected with the charge for the canal water and

the land assessment, is impossible, so long as we adhere to the principle of charging the same rates for the water all over the country. This principle was, I believe, laid down by Lord Elgin, when he was Governor-General. It is, of course, a convenience in many ways, that the rates should not vary. So it would be a convenience if the land revenue were assessed at one universal rate per acre. But that would hardly be advocated, as the rate must needs be the minimum, and the loss to the State would be enormous. But I can see no reason why the rate should be unvarying in the one case more than in the other. It must be the minimum rate in the case of the canal also, and therefore must cause great loss. I do not, of course, advocate an infinite multiplication of rates; but there are different large tracts of country, to which, with reference to the absence or presence of other sources of irrigation, different rates should be applied. If this were done, it would be possible to charge one average rate within the tract, without reference to crops. At present, the inconvenience and complication supposed to be avoided by the adoption of uniform rates, is extreme, as the rate varies with the crop.

It is the more important that this idea of one universal canal rate should be examined, because, chiefly in consequence of it, a radical mistake in assessing canal-watered estates to the land revenue has been committed. In all new settlements of land revenue, on the expiration of the present engagements, the rule of the North-Western Government is, that one-half of the rental is to be taken as the standard of assessment. It is, of course, in many cases, impossible to ascertain the real rental; and, in many cases, where the real rental is known, it is of such a character as to render it an unfit basis for assessment. It is often too high, the estate being rack-rented; it is sometimes too low, the land being, for fraudulent or other purposes, let out at almost nominal rents. For instance, on account of the caste of the cultivators:—I have known estates assessed at nominal sums, owing to the proprietors having been Brahmins. In some cases, some tradition has attached a curse or ill-omen to the estate, preventing it from letting at its real value. In these cases, the basis of assessment is really a valuation of the estate, from comparison with similar adjoining estates, and on other good and extensive data, such as might guide any landlord in renewing

his expired farm leases. In framing such estimates, the increased value of the land from canal irrigation is taken into account, under express orders from the Government. While, then, the cultivator is charged directly with the water-rate, the Government assesses the landowner on the increase to the value of his estate from the spread of irrigation. This increased value may be rated at zero, when the well-irrigation has only been supplanted by canal water: it is appreciable where the estate, or part of it, was not before irrigated, although it was irrigable; it reaches its maximum where irrigation from other sources is impossible. As we insist on competing with wells, and on charging the same rates for our water in all places, it is clear that the tendency of canal irrigation will be to make the rentals of estates in which no irrigation was possible, equal in rate to the rentals of those amply supplied by nature with springs of water. In round numbers, since irrigation doubles the value of land, the value of a given number of acres will be  $2x$  instead of  $x$ —, and the Government share will be  $x$  instead of  $\frac{x}{2}$ , and the share of the landlord will be also doubled. But to landlords whose estates were before watered from wells, the value

of the same number of acres will remain as it was, at 2*x*. Now, in neither case, be it observed, have the landlords done anything to deserve an increased rent-roll. The improvement has been made at the public expense; that is to say, at the cost as much of the landlord who has derived no benefit, as of him whose rental has been doubled.

But it will be said, how are we to avoid this? The land will improve in value from irrigation, and the Government will obtain in the land revenue a full share of the improvement. The answer is, that if you charge the cultivator the market price for the water, you will confer great incidental advantages on the landlord, but you will not artificially double his rent. Instead of getting a part of the price of your water, under the name of land revenue, you will get the whole of it. By adhering to the present system of one universal charge for the water, which must be the minimum charge, you are enriching the landlords of dry estates just as much as if you gave the privilege of buying bread at half price to their tenants, and to them only.

There is another difficulty, namely, that by thus artificially increasing the rent, we are making an artificial basis for our own revenue

assessment. This was urged very strongly by many officers a few years ago, when the then Secretary of State announced his determination to give a permanent settlement to the North-West Provinces. It was met by the assertion that the rent, never would be reduced by any increase of the water-rate. This is no doubt true, if by rent be understood the natural rent previous to canal irrigation. But if we, by making a nominal charge for water, raise rents artificially, we can undoubtedly, *pro tanto*, diminish them again by increasing the charge.

The Government was strongly urged, on many grounds, to disregard canal irrigation in settling the land revenue. There are many reasons for such a course, which it would be tedious to explain, and some of which would be unintelligible to outsiders. Theoretically, I have no doubt that it is the correct course. Practically, however, the difficulties in the way are numerous; and decision was given against it, principally on the ground that, in the valuation of estates, it would open a vast field to conjecture, and leave the officers employed in the settlement of the revenue without check.

Since this discussion, the question has lost its great importance by the virtual abandonment of

a permanent settlement during Sir S. Northcote's incumbency. . The question would, I believe, be settled, and all the difficulties met, if the principle of one universal canal rate were abandoned, and variations in the charge for water made according to the necessities of different tracts of country. If this were done, there would not be so much need to discuss the question of assessment, since no artificial fluctuation in the rates of rents would be possible, and we might take the Government share of the present valuation of an estate, without fear that the landlord's share would be either materially increased or decreased by the influence of the canal water-rates.

I believe, then, that to make a canal pay as a financial measure, and to secure from it the greatest benefit to the country and nation at large, it should distribute its water so as to supplement the well irrigation, and that its charges should vary broadly with the capabilities for irrigation from other sources in different tracts of country.

## V.

### ON RENT RATES.

THE standard used by the people for measuring land varies very much in different parts of the North-Western Provinces. Even in the same district, and sometimes, I have been told, in the same estate, the standard measure varies in size. The measure, however, which is most generally used is nearly equal to one-sixth of an acre. Its standard is said to be a square of twenty paces, stepped by a woman big with child, carrying a vessel full of water on her head, and another under her arm.

- There is another measure, of larger size, which has been adopted by Government in the revenue survey. It is also variable in its dimensions; and has no advantages over the popular standard in any way. In some parts of the country, this larger measure has come into general use, and has superseded the smaller. This is, however, the exception.

It is upon the smaller measure, whatever may be its exact dimensions by local custom, that the rent is fixed. The disadvantages of the variations in its size are, of course, great and obvious. But the people are wedded to their own customs, and perhaps nothing is so difficult as to effect a change in the standards of measure or weight in popular use. For the purposes of Government, it is sufficient that the variations are known, and that the areas of each estate, after measurement, are reduced to standard English acres.

The way in which rent is taken, and the principles by which it is fixed, are many. I have met with seven different methods of taking or calculating rent.

Firstly, we have the most primitive custom of all—that of taking rent in kind. This, in its pure form, is disappearing rapidly; although it still obtains over a large part of the country, particularly in Rohilcund. Where this practice exists, the grain is cut and threshed, and heaped in the threshing-floor by the cultivator; and it is then divided, in whatever proportions may have been agreed on, between him and the landlord. But it is to be noted, that rent in kind is only taken of certain crops, namely, the ordinary

cereals. Sugar, cotton, the millet "*joar*," when sown for fodder, and generally maize and indigo, always pay rent in cash. So also do tobacco, and all vegetables and market-garden cultivation. The principle on which this distinction is based seems to be, that the crops which require a larger amount of care and toil on the part of the cultivator should pay a fixed rate, so that the cultivator may reap the full value of his labour; while with regard to maize and *joar*, when sown for fodder, they probably are paid for in money and not in kind, because they are required by the cultivator for his own immediate use.

The proportion of the produce which is taken as rent varies with the quality of the soil. Rent being the balance which remains after paying the cost of production, and that cost being for all soils nearly a constant quantity, it follows that the rent of a bad soil will bear a much smaller proportion to the gross produce than the rent of a good soil to its out-turn. We find, then, that while in the best soils the landlord will take one-half of the produce, in bad soils he will only get a third, or even a fourth. We should not, therefore, look to find the produce of the land distributed in any fixed proportions

between the Government, the landowner, and the tiller of the soil. I mean that any theory which lays down as a rule that the Government should have one-fourth, the landlord one-fourth, and the cultivator one-half of the gross produce; or which fixes any other proportion as the rule of division, is a fallacy. The proportion must vary with the character of the soil, and the amount of produce, and the labour required by the crop.

In experience, I only know of one instance in which the landlord's share avowedly exceeded one-half. On a large area of all kinds of lands, two-fifths will generally be the average share of the landlord.

It must be noted, that where rent is paid in kind, so far as my experience goes, the landlord gets a share of the grain only. The straw always goes to the cultivator, who, therefore, gets by far the larger share of the gross produce.

Tenants in India who pay rent in kind must not be confounded with the *metayers* of France. The landlord in India never provides the live-stock. The whole expense of cultivation falls on the tenant, who would therefore seem to be under a much heavier rent than the *metayer*. Probably, however, there are other circumstances

which restore the balance. There is much in the condition and character of the *metayers* of Périgord, as described in an article in the "Revue des Deux Mondes," some time ago, which resembles the peasant of Northern India. A comparison of the two, by one acquainted with both peoples, would be very interesting. •

Payment of rent in kind is, as I have said, fast going out of use ; and a law has been lately passed to facilitate its disuse, by giving the courts authority to commute the rent at the request of either party. Such commutation is by no means an easy matter, and leads to great disputes. However much we may wish to do away with rents in kind—and they are thought by some to be very mischievous—still I am sorry that the change was not left to time. I have never seen any good come of the interference of law between the landlord and the tenant.

Where the soil is good and water abundant, the tenant is usually desirous of commuting his rent to a cash payment. The landlords, especially those who are Musulmans, are averse to the change. Where rents are paid in kind, they have much greater power in their estates, and have a more submissive tenantry. The grain is not allowed to leave the threshing-floor until the

landlord has taken his share. A troublesome tenant can, in this way, be coerced by the landlord delaying to take his share, and preventing the removal of the grain. The system throws a great deal of power into the landlord's hands, and tends to keep the tenant poor. Still I would have left the remedy to time, which has removed the evil from a great part of the country without our interference.

One degree distant from the payment of rent in kind is the custom of taking the money value of an estimated share of the crop. When the crop is nearly ready to be cut, the landlord or his agent, accompanied by the cultivator and some of the most respectable tenants, goes to the field, and estimates the yield. The landlord's share is then commuted to a money payment of its value at the market price. This is a very ancient custom, and is very often confounded with the payment of rent in kind. Thus we find, in a paper read before the East Indian Association a few months ago, a charge brought against the British Government of impoverishing India, on one ground, amongst others, that we have taken the revenue in money, whereas the Native Governments took it in kind. Even supposing the facts to be correct, the conclusion

drawn is open to dispute, and seems to rest on the vulgar notion that nothing is wealth but money. But the truth is, that it was not always rent in kind, but money-rent fixed after a valuation of the produce, which was taken by the large landowners and farmers of the Native Governments; and, in every case, the payment of rent in kind extended, as I have before explained, only to the common cereals, and not to the valuable crops of sugar, cotton, and the like.

This custom of fixing the rent by valuation is fair enough in principle; but in practice it seldom satisfies the cultivator, who is often unjustly treated in the valuation.\*

Coming now to pure money rents, the first to notice is the custom which most nearly resembles the payment in kind, namely, that of varying the rent with the crop. Under this system, sugar, cotton, wheat, &c., have each their own rate of rent. The landlord makes his survey at every harvest, and frames his rent-roll accordingly. The tenant is held bound to treat the landlord justly, and to sow the fair and customary pro-

\* *E.g.* The landlord tries to have the valuation made soon after dawn, when the crop, fresh from the dews of night, always looks fuller than after a few hours' sun.

portion of valuable crops. Where this custom prevails, and also in estates where rents are paid in kind, the landlords watch the condition of their estates closely, and prevent the removal of manure from their lands.

The following list of rent-rates may be interesting :—

|                  |   |      | <i>s.</i> | <i>d.</i> |    | <i>s.</i> | <i>d.</i> |           |
|------------------|---|------|-----------|-----------|----|-----------|-----------|-----------|
| Wheat            | . | from | 18        | 0         | to | 8         | 0         | per acre. |
| Millet or pulses | . | "    | 12        | 0         | "  | 6         | 0         | "         |
| Maize            | . | "    | 15        | 0         | "  | 6         | 0         | "         |
| Cotton           | . | "    | 24        | 0         | "  | 11        | 0         | "         |
| Sugar            | . | "    | 60        | 0         | "  | 24        | 0         | "         |

The fourth custom, which prevails chiefly in the northern districts of these Provinces, is that of charging two rates of rent, one for dry land and the other for irrigated land. The custom is a good one, because it makes it the immediate interest of the landlord to increase and promote irrigation. As I have before had occasion to remark, when speaking of wells, land which can be irrigated from common makeshift wells is charged the higher rate, and the cultivator is bound to make the wells.

Fifthly, we find an all-round rate of so much per acre charged on the cultivation, without regard to the nature of the crop or to the irrigation. This custom prevails in those parts of the

country where the soil is found in large tracts of one quality.

Sixthly, we have the system of lump rents, when each tenant pays a certain fixed sum, which does not vary except by special agreement. Rents become much more stationary where this custom prevails, and do not rise so rapidly.

Seventhly, we find in many places that the rents are fixed chiefly with reference to the nearness of the land to the village homestead. The lands are divided into three classes—near, distant, and intermediate; and are rated accordingly. When this custom obtains, it is a sign, I think, of a backward state of agriculture. The peasant pays more attention to the distance of the land from the homestead, than to the character of the soil. Not that the distance is often so great as to make any real difference; but, because the lands near the village are manured for him in the natural course of things, while those at a distance must, if manured at all, be manured by him. The Jâts of Meerut, who are the best farmers I have seen, and understand the value of manure thoroughly, do not pay much heed to this distinction. This custom is also, perhaps, a result of the unsettled

state of the country, and the absence of a proper police in former times. It was unsafe to sow valuable crops at a distance from the homestead, where they could be robbed and carried away with impunity.\* As the country progresses in wealth and intelligence, I expect to see this custom of fixing the rent chiefly with reference to the distance from the village, disappear. Of course, the land nearest to the village will always have an advantage over that more remote; but, not so completely to the overlooking of other qualities, as it now has in some places.

Besides the rent, it is a very general custom for the landlord to charge the tenants with certain cesses, nominally to defray some of the expenses of the estate. These "village expenses," as they are called, were no doubt, in former times, a *boná fide* charge. Most of them have now become obsolete, and remain on the books, partly from custom, and partly to make the landlord's net profits appear as small as possible to the eye of the revenue officer. The cesses, however, which were originally levied to meet these charges, have very generally re-

\* In some places in Europe, the reverse is the case. Farmers will not sow turnips or carrots close to a large town.

mained, although in a more fixed and constant form.

The arbitrary impositions of the landowners, to which the tenants were subject, attracted the attention of the Company's Government from the earliest times; and much was done, both by legislation and in other ways, to stop the evil. When we took the country, these impositions, which resembled aids in their character, were as various and uncertain as the particular occasions of every distinct landowner, and as the abilities and disposition of each particular tenant. The death of a zemindar, the birth of a son, the marriage of a daughter, or the like, were pretences for them. Like the aids, they do not seem to have been acknowledged as obligatory, but were more of the character of benevolences. A stipulation was sometimes exacted in Lower Bengal, and given, that these impositions should terminate with the year. When, however, the landlord was powerful, the tenants helpless, and justice not to be had, such stipulations were fruitless, except insomuch as they showed the nature of the imposts.

Under our Government, their oppressive and uncertain character has disappeared. The form into which they have settled down, is that of

58900

58899

a fixed percentage on the original rent. In this shape, they are, really and simply, an addition to the rent of one or two annas on the rupee. The cultivators, probably on the principle of indirect taxation, feel the rent less heavy than it really is, when it is clothed in this form. When rent is taken in kind, these cesses are often taken in the same way, in the form of a percentage on the original share.

The heads of charge of "Village expenses" vary a little according to local custom, but are for the most part of a stereotyped character. They consist of items such as "Expenses of collection," "Charges for hospitality at the resting-place of the village," "Expenses incurred by landlord attending the courts," "Alms to mendicants," \* "Gifts to dancing girls," "Expen-

\* To illustrate the nature of these charges, I may mention that, in one district, I found nearly every village account had an item of "One rupee to Alum Shah, religious mendicant." On inquiry, I found that no Alum Shah had for years past existed. But some of the older men well remembered the bed-ridden old mendicant, who came on his rounds once a year. No one could tell whence he came. But, so surely as the day came round, would four men from a neighbouring village appear with Alum Shah on his bed. He was put down under the village Peepul tree. He received a meal and his one rupee; and he was passed on to the next homestead on the shoulders of four coolies, who, after leaving him there, returned straightway. No one knew more of him than this.

ses at various religious festivals," and the like. If any money is expended on bribery, it is usually charged under one of these heads.

Before the cultivator can consider himself clear, he has to satisfy a number of other claims, which are generally paid in kind. Each village has its blacksmith, carpenter, washerman, water-carrier, priest, and the like. They do all that is required during the year ; and are remunerated by the gift at each harvest of so many pounds of grain for every plough. It is said that in the more advanced districts of these provinces this custom is dying out, and that payment in money for these services is taking its place. But this is not my own experience. So far as I know, these craftsmen are still paid with portions of grain as heretofore.

The lower castes who live in a village, and who until of late years seldom farmed land, or did anything but labourer's work, are held liable to the landlords for certain services, such as repairing his house, mending roads, and the like. If any troops, or any officers of Government, encamp at the village, these men are called on by the landlord to discharge any duties that may be required; such as carrying fodder to the camp, helping to pitch the tents, and guarding

the encampments at night. I have known a landlord seriously remonstrate against the giving of any remuneration to these labourers, on the ground that it was an infringement of his prerogative, and was teaching them a bad custom.

Landlords, who reside in their villages, have great power, and many perquisites, and free services, which add greatly to the value of the property, although they do not appear in the rent-roll.

The rent is payable usually in four instalments, corresponding to the instalments of the land revenue, and preceding them by a month. The principle has been to take the rent so soon as the crop is ready for the market. There seems to have been considerable fear that, if it was not taken then, it would not be forthcoming afterwards. The improvidence of many classes of the people, and the uncertain and disturbed state of the times, no doubt justified such an apprehension.

But officers of experience have of late called attention to the evils which follow this system, and have raised doubts as to the present necessity for continuing it. It has been pointed out that the cultivators are now compelled to throw their

grain at once into the market, and are thus obliged to sell at the cheapest rate. They are, also, all wanting money at the same time: and by money is meant actual cash, for at present it is in actual silver\* that the revenue is collected; and the men among the landlords who can and will pay revenue from their own savings, and collect from the cultivators at their leisure, are very few. The result is, that the peasantry are placed at the mercy of the money-lenders and grain dealers. They must have a certain amount of cash within a certain time; and the demand being made all over the country at once, the value of grain is depreciated, and that of silver raised, as much as possible.

The remedy proposed is to vary the times of collecting the revenue, and consequently the times of taking the rent, so as to spread the collections over the year, the demand being made in no two parts of the province at the same time. Whether this scheme will work is a matter of experiment. I believe there is no legal difficulty in the way of its introduction.

The native landowners, to whom I have spoken on the subject, seem to think that any delay in

\* The hampered paper circulation introduced a few years ago has done nothing to remedy this evil.

recovering their rents will render them liable to heavy losses from bad debts. There are no doubt some races—the Thakoors and Goojurs, for instance—who are so improvident as to make it hopeless to expect that they will keep the money, if it is left with them. And, generally speaking, men who have had anything to do with collecting money know that it is a risk to defer making the demand. If we do not take it when a man has it, we are very likely not to find it when we want it. To allow arrears to accumulate is ruinous to all parties. Still, the experiment might be made. No doubt the country is not in the state it was; and such provisions might be introduced as would meet the case of improvident and spendthrift races.

The great difficulty is, that, in India at present, it requires such a large amount of actual silver to carry on the business of the country. Thus, in a small district where no troops are kept, seventy or eighty thousand pounds in silver will be collected from the agricultural classes, and exported bodily. Not a single pound will be paid by cheque, and hardly one by note. This amount must find its way back to the district in the course of trade, to be again collected and exported the next year. There is very little

cash to be found among the peasantry. The greater part of their own dealings is carried on by barter, as any one may see for himself at the markets. It is, therefore, hard for them to find the cash on rent days without putting themselves more at the mercy of the dealers than they ought to be. The difference between the price of grain at harvest time and its price afterwards is enormous.

It was, perhaps, with a view to meet this evil that the Emperor Akber, in his settlement, provided that the husbandmen might always pay in money or in kind, as might be most convenient. With a fixed revenue it is obviously impossible to adopt a plan of this sort, even if there were no other objections. When the *proportion* only of the revenue to the produce was fixed, it might have been practicable. But if we determined the *amount* of revenue, and at the same time allowed any option of this sort, we should always be the losers.

This question is connected closely with that of the currency. A good paper currency would probably do much to relieve the evil. And the delay and distribution of the demand would most likely complete the cure.

The introduction of Savings Banks, under the

guarantee of Government, is perhaps one of the means which we shall have to adopt to relieve the agricultural classes. That is a measure, however, which will require great caution and deliberation in its introduction, lest we excite the apprehensions of a most suspicious race. Anyhow, the whole matter is a question well worthy of consideration and experiment.

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## VI.

### ON LAND TENURES.

ALTHOUGH the land tenures of India have been the subject of public discussion and inquiry from a very early period of our rule, yet, to the majority of English readers, they are still unknown. Nor is this to be wondered at. Except to the few politicians and travellers who have made the country an object of study, India itself is completely unknown to even educated Englishmen. Men who would be ashamed to show ignorance of European or American questions, will acknowledge readily that they neither know nor care anything about India. Even among the middle classes, most of whom have friends in some one branch of the Indian services, it is the exception to find a man who knows the relative situations of the three Presidencies. Such being the case, it is not surprising that much knowledge does not exist on the subject of the tenures of land.

Besides the apathy of people in general on Indian subjects, another cause of ignorance is the habit which has beset Anglo-Indian writers of using vernacular words. These terms are, no doubt, of great sound and length, and of significance to those versed in the languages of India; but to men who are unacquainted with those tongues, they only serve to obscure a subject already difficult. Such words as Jageerdar, Talookdar, and the like, are not only enough to prevent most men from obtaining information, but even to deter them from seeking it.

In the following remarks it will be my aim to explain as clearly as I can the general tenure on which land is held in the North-West Provinces of India, and the chief varieties of tenures. It would be impossible to describe every property and quality which, in the course of ages, have become attached to particular tenures. But I can, I think, show that all tenures are reducible to one broad basis, and that the complicated properties, which belong to many of them, rather arise out of local customs and the laws of inheritance, than out of the tenure itself.

The sovereign power in India has, from the earliest times, enjoyed, as its right, a share of the produce of all land. This share, according

to the Institutes of Menu, was, under the ancient Hindoo rajahs, one-sixth. Practically, indeed, it was discretional, and was limited more by the ability of the subject than the will of the ruler. The fact, however, that the sovereign's share of the produce was even theoretically limited, shows that the ruler cannot have been regarded as sole proprietor of the soil.

Under the Mahomedan rule, we still find this principle adhered to. However lax the practice may have been, on account of the anarchy of some reigns and the tyranny of others, we still find the sovereign claiming no more than a share of the produce of the land.

Indeed, if we suppose, as some writers have done, that the Mahomedan emperors intended, in their settlements of the land revenue, to adhere closely to the principles of their own law, we cannot allow that they laid any claim whatever to a property in the land. Under the Mahomedan law, the lands of India would have been liable to a tax, which might have been either a definite share of the produce, or a fixed rate per acre. But in no case could more than half the produce have been taken. And, under this law, the land-tax or tribute would be levied from the proprietors of the land, who were at

liberty to sell or dispose of their lands as they pleased.

For my own part, however, I do not think that it can be shown that the land revenue of India was ever settled according to the strict principles of Mahomedan law. The right of the ruler to share in the produce is immemorial, and the coincidence of this right with the common practice of Mahomedan conquerors seems accidental. Nor can any argument be drawn from the use of Persian or Arabic law terms. Naturally, those words would be used, by the foreign conquerors, which seemed to suit the institutions which they found in India, without regard to any radical distinction which might exist between the state of things in India, and that to which alone the words were strictly applicable.

We may then, I think, infer that, under the new rule, the old principle was carried on, and that if any change was made by the Mahomedans, it was a change towards strengthening the rights of the people rather than those of the sovereign. The greatest change made by the Mahomedan conquerors, and that which tended more than any other to make it difficult for us to understand the nature of the land tenure,

was in the collection of the revenue. The methods which were practicable in the kingdom of a small raja, became too clumsy and minute to be possible, in a large empire. Hence, in many cases where property was minutely divided, the revenue was collected in a lump through one person, who was designated by the Persian term "zemindar," which simply means landholder. This person was usually an influential proprietor himself, and owned some of the land, the revenue of which he was appointed to collect. In order to escape the tyranny and rapacity of the native Government officials, it was not unusual for smaller proprietors to group themselves under a powerful neighbour, and to pay their revenue through him, while the members of village communities would pay their quota through their head men.

Under the first Mogul Emperors, great attention was paid to the equitable assessment and collection of the revenue. The Emperor Akber introduced a system which would have done credit to the most enlightened Government, and which is the foundation of our present revenue settlement. But, afterwards, when the empire was in its decline, a system of farming the revenue was resorted to, which proved the ruin

of many of the smaller landowners, who were as much entitled to the name of "zemindar" as their more powerful brethren. The state of things, in one province, under this farming system, has been thus described:—"The unprincipled landowners, by ingratiating themselves with the rulers, for the time being, distressed the inferior landowners by every possible mode, until they were reduced to the necessity of selling their properties to their oppressors, who thenceforward became, by virtue of usage, not of right, the acknowledged proprietors of them. Other landowners, having desolated their lands by mismanagement and dissipation, were obliged by the ruling power to dispose of them to more prudent and opulent proprietors, for the liquidation of their balances. The title of the purchasers of such land was considered good and valid. Towards the close of the reign of Mohummud Shah, during the administration of Ramnarain and Jankeeram, and other Governors of Behar Province, certain landowners, by attaching themselves to these officers, acquired great influence, and either by force, or under different pretences, unjustly possessed themselves of the estates of the inferior landholders, till at length becoming rich and

powerful through the connivance of the Governors who permitted these usurpations, they declared themselves the proprietors of lands thus unfairly acquired. It was by the above modes that many landholders augmented their possessions.”\*

Cases, also, no doubt occurred, in which men who had no landed property whatever, possessed themselves of the properties of those whose revenue they had been appointed to collect, and usurped the places of the proprietors.

Although, therefore, the spirit of the Mahomedan policy was to acknowledge and confirm the property of the subject in the land, yet, owing to the anarchy and misrule which prevailed under the later Emperors, the result was to depress, and in some cases annihilate, the rights of the smaller proprietors, and to throw large tracts of country into the hands of men, either in part, or wholly, usurpers.

Another circumstance still further led to a misunderstanding of the real state of affairs. Under the Mahomedan Government, the landholder was required to perform certain duties of police, and to keep the roads and bridges in

\* *Vide* extracts from Harington's "Analysis of the Bengal Regulations," p. 114. Calcutta, 1866.

repair. He was also, in some respects, held answerable for the good behaviour of the tenants on his estates. In all these points, his terms of tenure were analogous to feudal ones, or to the Saxon land duties.

On succession to landed property, a fine was paid to the Emperor, of the nature of a Relief; and the person succeeding was, at least in the case of large landholders, presented with a formal document or order of investiture, enumerating the amount of revenue to be paid by him, and the other duties incidental to the tenure, which were required at his hands.

With these facts before them, and with the knowledge that many of the larger landholders had acquired great part of their estates by fraud and usurpation, and that in some parts of the country there still existed large communities cultivating their own land, and paying their rent directly to Government, many men formed the opinion that there was no landlord in India, except the Government, and that all these men who held a middle place between the actual tiller of the soil and the Sovereign, were mere office-holders or collectors, subject to removal or dismissal, at pleasure.

There were many circumstances, too, which

seemed to confirm this view. The assessments under the farming system had increased so much as to leave very little difference between the revenue and the gross rent. It is easy to see how, under such circumstances, the distinction between the holder of land and his tenant might be lost sight of. In the case especially of communities, the members of which, for the most part, cultivate a portion of their own land, if the revenue be raised so as to equal the full rent, all apparent difference between the owner and mere tenant of the land will be destroyed; and the only person, retaining any mark of superiority, will be the head man, or representative, who collects the revenue and receives a small allowance for so doing. Many estates, too, being over-assessed, would be abandoned by their proprietors, and would be treated as the property of Government, and either farmed to strangers, or managed by the public officials. In addition to these results of over-assessment, a practice had of late obtained, of granting lands free of revenue for ever to favourites or officials of the Court. Strictly speaking, these grants were only assignments of the revenue of certain lands. In practice, however, the grantees took possession of the lands,

ousting the proprietors, but paying them as compensation an allowance, either in money, grain, or land. In some cases, when the grantee was a powerful man and a great favourite at Court, he deprived the proprietors even of this remnant of their rights. But in such instances it must be remembered that might was right in those days. The right of the landlord was simply trampled on, and reduced, as it often had been, by over-assessment to less than nothing, it was not worth fighting for. We have seen the same result under our own Government, when litigation regarding landed property was almost unknown in certain districts, in consequence of its utter worthlessness.

Such being the state of things, it was not wonderful that men, with English ideas of property, saw no proprietary right existing, except in the sovereign, who gave land away as he pleased, and absorbed the greater part or the whole of the rent in his own revenues.

But that this view of the case is erroneous, I have no doubt from the following considerations. First:—The common consent and traditions of the people, who cling to property in land even more than other nations, and treat it as more sacred and inalienable than any other posses-

sion. Secondly: — From the old language, which has words to signify land cultivated by the owner, as distinct from land let by him to others. Thirdly:— From the feeling which seems innate in the people of the north-west, that while the right of the sovereign to share in the produce of land is a sacred one, yet that it is strictly limited to a fair and equitable amount, and that even the rank and family of the landowner should be considered. Fourthly:—From the law of both Hindoos and Mahomedans, which limited the sovereign's right to a share of the produce. But lastly, and chiefly, from the actual facts of the case, even in Bengal, where the rights of the smaller proprietors seemed to have been almost stamped out. For it cannot be denied that landed property was from of old transferred and inherited, and that even when, by a stretch of absolute power, grants of land were given to strangers, the proprietors received compensation for their rights avowedly as such.

The truth seems to be, that those who take the extreme view of Indian tenures, and deny the existence of any proprietary rights in the soil, save to the sovereign, are following out a theory without regard to custom or practice.

They forget that all tenures are modified more or less by usage. Let us compare the feudal tenures with those in Hindostan. They resemble each other in many respects. In both cases land is held conditionally, and dependent on the acknowledgment of a superior, to whom the tenant is bound to render certain service. Under the feudal system, the service was purely military in its origin. In Hindostan it was chiefly fiscal. As in Europe under the feudal policy, military aid or service was understood to be the real or fictitious terms of all property or possession, so the condition of all property in Hindostan was the payment of a certain share of the produce to the lord. The dominion, in both cases, was by a fiction vested in the sovereign. On the death of a landowner, his heir was allowed to succeed him, but not absolutely, as a matter of course. As the heir to the feudatary paid a fine in the nature of relief to his lord, so the heir to landed property in Hindostan had, under the Mahomedan rule, to pay a fine of investiture to the Emperor. He was also often compelled to submit to various other exactions, and to gratify the rapacity of the officials to the utmost of his means, just as the feudatary was compelled in early times to

pay many arbitrary and unreasonable reliefs. But there is nothing in all this which could be brought forward to disprove the existence in Hindostan of the subject's proprietary rights to the soil, which would not tell with much greater force against the existence of such rights in England. The property and possession of the subject, in both countries, were conditional, and subject to certain services and limitations; but although they were sometimes curtailed and diminished by tyrannical abuse of power, yet they were none the less real.

Although it would seem that landowners were allowed to mortgage and sell their estates, and that under the Mogul rule, estates were in some cases sold by the Government to pay arrears of revenue due on them, yet the forcible alienation of landed property appears quite contrary to the spirit of the ancient constitution of Hindostan. The feeling of the people on this matter is in accordance with the old Jewish law, which regarded the permanent alienation of land as impossible. Even to this day, when a proprietor is driven by need to sell or mortgage his estate, he generally reserves a few acres of land, or a few pounds of rent to himself by way of maintenance. The compulsory sale of land for debt

was unknown (as it was anciently in England),\* and no change more hateful to the people, or more contrary to their very nature, has been introduced by us.

Custom, however, has made the alienation of land possible, however foreign it is to the constitution of the people; and the unthriftiness of many classes, aided by our assessment and their own fraudulent suits in the civil Courts, has caused transfers to be common, and in some districts universal. But alienation of land is only allowable under certain conditions. The service of the tenure must remain intact. The land has been divided into townships or townlands, and each townland, or group of them, has been assessed with a certain amount of revenue. The proprietor cannot without the consent of the sovereign split his tenure and divide his liability. The whole township will still be held liable for the whole revenue, unless the sovereign consent to its division. The reason of this is obvious, when we consider that the foundation of the system is a financial one. If the tenant could divide his responsibility for the revenue, without the consent of the Government, it is clear that great opening would be given to fraud, and great

\* *Vide* Wright's "Law of Tenures," p. 170.

inconvenience in collecting the revenue would result. Of late years, however, our Government has done everything to facilitate the partition and transfer of landed estates, more perhaps than the permanent interests of the land revenue can justify. For the more estates are cut up and divided, the greater will be the expense of collecting the revenue; and small needy landowners can never pay the same proportion of the assets of an estate, with the same ease and punctuality, as large proprietors. The consent of the sovereign to the partition of an estate with the revenue of it, is still virtually required.

As landowners are restricted from dismembering their tenures at will, so it is impossible for them to relieve any portion of their estate from the condition of the tenure—namely, the payment of a certain share of the produce or assets to the Government. There is nothing, indeed, to prevent a landlord from giving all or a portion of his estate, rent free, to anybody. But he must in such case discharge the revenue out of his own pocket; and in case of default, the land always remains liable for the revenue, notwithstanding any act of the proprietor.

The doctrine that no act of the proprietor can defeat the conditions of his tenure, holds good

with regard to leases and all encumbrances which he may place on the estate. No lease can be given fixing the rent for any term of years longer than the period for which the revenue has been settled by the Government; and in case of default, all leases, mortgages, and other encumbrances, such as rent-free grants, and the like, are swept away.

There is one circumstance which has always affected the value of the tenure, though not its nature. I refer to the virtual want of limit to the share belonging to the sovereign. In former times, prior to the Mahomedan rule, the share was restricted, at least theoretically, to one-sixth of the produce. Whether it was ever practically confined to this portion is doubtful, as Menu, who is the authority on the subject, was much more of a theorist than an historian. The best emperors among the Mussulman conquerors of India, laid down a third of the average produce of average land as the share to which Government was entitled, in the case of cereals and other crops which paid in kind. In the North-Western Provinces, the British Government at first settled the revenue at two-thirds, but afterwards at half of the rental, and this is the standard of assessment at the present day. It

is, perhaps, not too much to say, that constitutionally, the sovereign's share was always limited and defined, and that under good and just rulers, it has been actually so limited, while under the British Government the line has been clearly and generously laid down.

In ancient times, and under the settlement of Akber, the principle seems to have been, to define that portion of the produce which should belong to the ruler. We have gone on a different basis. We have defined our claim to be a share of the rental of an estate, not of its produce ; and in this I think we have been wise. It was undoubtedly a share of the produce, to which the sovereign was by ancient custom entitled. It may appear more perfectly in accordance with principle to endeavour to ascertain what this share should be, and to base our settlements upon it.

Practically, however, as I have before remarked, the share of the produce, which can be paid as rent, varies with the character of the soil and also with the kind of crop. The difficulty, therefore, of laying down a limit which shall universally define the share of the sovereign is insurmountable. Akber, in his settlement, endeavoured to meet it by ascertaining the average yield in average land, and taking

a third of the average produce. But this was clearly a virtual acknowledgment of the impossibility of the attempt; and the assessment thus made must have pressed heavily on the bad soils and lightly on the good. While; with regard to the more valuable crops, he abandoned the principle altogether, and assessed his share at a fixed money rate.

It is, therefore, more wise to take the rental or assets of an estate as the basis of assessment, than to seek a greater theoretical perfection by making the gross produce the dividend.\*

In the North-West Provinces, when the sovereign's share has been valued and ascertained, it is "settled," as it is called, for a long period, usually thirty years. During this period, the Government debars itself from any increase of revenue; giving, however, remissions and reductions, wherever they are needed. At the

\* Strictly speaking, since the proportion of produce taken as rent varies with the character of the soil, by taking the rental as our basis, and making the sovereign's share the same for all estates, we take more of the produce of the good estates, and less of the produce of the bad estates. We are, therefore, in the result, more correct than if we attempted to divide the average produce. At the same time, we do not deal with the landowner on the same principle which regulates his dealings with the tenant. We always take the same proportion of his receipts, whereas he varies his claim according as the soil is good or bad.

end of the term, a fresh survey and valuation of each estate are carried out.

By a permanent settlement is meant the making of this valuation once and for ever. The advantages to be derived from such a measure are either political, or such as may be anticipated from the inducements thereby offered to landowners to improve their estates. I believe these advantages to have been greatly exaggerated, and to be more than counter-balanced by the loss of future revenue, and by the carelessness to landed interests, and ignorance of the wants and condition of the peasantry, which a permanent settlement induces on the part of the Government officials. As to fixity of tenure in India, which people in England are always crying out after, it has nothing to do with a permanent settlement. Tenure in the North-West is as fixed and certain as it can be.

If, then, we are to define the tenure of the land of the North-West Provinces at the present day, we may say that all land is held from the sovereign, on condition of payment of half the rent \* received from it, and that no tenure can be

\* I purposely omit the cesses which owners of land have to pay for schools, roads, and police, as they have no connection with the tenure.

split or dismembered without the sovereign's consent.

To this simple basis all the apparently various tenures may be reduced.

The many complex forms which tenures have assumed, arise from the division of property by the Hindoo law of Inheritance, and other local customs, and these varieties are rather accidents than differences of tenure. As regards the sovereign, the conditions and service of the tenure are in all cases the same.

All estates, then, may be divided into the following classes:—

First.—Those which belong to one single owner.

Secondly.—Those which belong to several owners in joint occupation.

Thirdly. — Those which belong to several owners holding partly in joint occupation, partly in severalty.

Fourthly.—Those which belong to several owners holding in severalty, but under one tenure.

The first class is the simplest form of tenure, and requires little explanation. The owner (subject to payment of the sovereign's share of the rent, and to the general restrictions on

dismembering the tenure) has complete power over his estate.

The second class arises out of the first. If the sole owner of an estate dies, and leaves several sons, they succeed in equal shares to the estate, which, if not dismembered by regular proceeding, is held by them in joint occupation. It is usual for one of them to manage the estate, and after payment of the revenue, or sovereign's share, to divide the profits amongst his brethren. As a matter of convenience, and to facilitate the collection of the revenue, this manager is usually formally recognized, and registered in the Government books, as the person to whom the collector has to look for payment. But the tenure of the estate remains exactly as before. It is to be remarked that it is of no consequence, so far as the tenure is concerned, whether the co-sharers have each an equal interest in the estate or no. The estate is one and undivided, and is as a whole liable for the revenue assessed upon it. The proportion in which each of the co-sharers is interested only affects the division of the profits.

In the third class, an advance towards absolute division of property has been made. Here

we find several co-sharers who have partitioned part of the estate among themselves, and hold the rest in joint occupation. So far as their relations to the sovereign are concerned, the tenure is one, and the whole estate and all the co-sharers are jointly liable for the whole revenue. Among themselves, however, each co-sharer is owner and manager of his own part; while the common portion of the estate is treated exactly as an estate of the second class, and is managed by some one for the benefit of all.

The simplest form of this class is when each co-sharer has a portion of the estate in severalty, proportionate to his interest in the whole, and receives a proportionate share of the profits of the common part. But this simplest form is seldom met with, except in the case of estates which were formerly held in common, as in the second class, and have been partitioned, by a judicial proceeding among the co-sharers, to each according to his share.

When the partial division has been the growth of circumstances and of time, things are seldom so straightforward. Generally the richest and strongest and most fortunate among the co-sharers has got the most land into his own hands. In the primitive state which long existed, and is

even now, in some places, hardly passed away, he who had the most sons and the best bullocks got the lion's share of the land into his own farming. Sometimes, the interest which each sharer had by ancestral right in the estate has been forgotten in the course of years, and possession has become the sole measure of each man's property. Oftener, however, the rights of each co-sharer by inheritance are well known, and pertinaciously clung to. And then we have the spectacle, so puzzling to a stranger, of undisputed possession at variance with acknowledged rights. This co-existence of two things apparently incompatible gives birth to incidental varieties almost as numerous as there are estates of this nature.

The most common arrangement, when property is held in this way, is for the head man or manager to pay the Government revenue, so far as is possible, out of the proceeds of the joint land. The balance due is then paid by the co-sharers, either in proportion to their several holdings, or in accordance with their ancestral shares. If there is any surplus, it is distributed in like manner.

In some cases, I have known the proceeds of the joint lands to suffice for the payment of the

revenue in all ordinary years, and the co-sharers to receive nothing from the estate but the profits from their several holdings. Yet the true interest of each in the estate was known and recognized by all, although it, in no case, corresponded with the actual possession; and whenever any surplus had remained to be divided, or any balance to be raised, the quota of each sharer had been calculated according to his ancestral right.

In other cases, the revenue is distributed equally over the cultivated land, and collected from each co-sharer according to his actual occupation, while the interest of each in the whole estate is determined by ancestral right.

It is very common for estates of this kind to be partitioned off into two or more distinct divisions, each of which is held in the way I have described, while it has no more to do with any of the others, than in so far as it forms part of the same tenure and is under one common lien for the sovereign's share of the rent.

I might multiply instances of varieties in this class of estates. They are, indeed, so numerous, that a man can seldom go thoroughly into the affairs of any one of them without coming

on something new or strange. But I think that, with regard to all of them, the same may be said which has been written with reference to the peculiarity of the gavelkind tenure in Kent, namely, "that it was not a particular or proper effect of gavelkind tenure, but that it was rather the ancient course of descent retained and continued in that county." So I would say that these peculiar customs and arrangements for the interior management of these estates do not spring from the tenure, but from the customs of the people and their laws of inheritance. The tenure is the same as it was before the land was thus partitioned amongst them.

Here it may be said, that I assume that the land was divided amongst the co-sharers, as if there had been a time when it was not so divided. My belief is, that all these communities who hold estates in this way are the growth of time, and are mere enlargements of the family. However mixed they may be now, there is no doubt that, originally, the members of these village communities were members, if not of the same family, yet of the same clan. Where they have preserved any tradition at all of their origin, it is generally one which traces it back to one ancestor, who came and settled

on that spot. Those who have seen the division of property under the Hindoo laws of Inheritance going on before their own eyes, and the complicated relations which ensue from the joint occupation of estates, will have no difficulty in believing, that the most numerous and intricate community may have grown, in the course of years, from one simple origin.

There is nothing, in my opinion, to justify us in supposing that these communities had their origin in the occupation of a certain tract of land by a tribe or clan. This idea seems to have arisen from the mistaken notion, that the lands of these villages are held by the community as common property, in the same way as the Irish clans held their districts under the custom of tanistry. I have never met with a case of this kind; and I doubt the existence of anything of the sort in the North-West. The joint occupation of a property by individuals, each of whom has a separate and definite interest in that property, is a very different thing from a common holding, under which the members individually have no rights, while all belongs to the community. The cases which seem to favour the view of a common holding are those in which the occupation of each member con-

stitutes, or seems to constitute, his interest in the estate. But, in these instances, I am much more inclined to suppose that the ancestral rights and interests of each member have been obliterated and forgotten, than that they never existed. Indeed, there is nothing like community of property in the spirit of the ancient Hindoo law. The rights of the family to ancestral property were strictly guarded, but the interests of each member were, at the same time, defined ; while the anarchy of ages, and the constant danger from foreign conquerors and marauders, tended to keep families united, and to prevent them from dividing their estates, just as it drove them to cluster and congregate together in villages, instead of scattering their homesteads over the country side. The tenure, also, and the restrictions placed on dismembering it, and the common lien for the Government Revenue, under which all the lands of the community lay, exercised a great influence in preventing actual division, so long as no great internal quarrels arose. I have, indeed, seen an instance in which an estate was occupied by a newly formed community, who united themselves for the purpose. There was an estate in the Meerut district owned by a Mussulman, who

resided elsewhere. The only tenants were some families of religious mendicants who lived in the village on the property. A farmer, who had a share in an estate in the neighbourhood, thought that he could make something out of the land, if the Mussulman would sell it. As he had not the means to purchase it himself, he induced other persons to subscribe, and form a company with him for the purchase of this estate. They drew up a regular deed, setting forth the interest of each of the partners in the undertaking, appointed their head men or managers, paid the Mussulman his price, and proceeded to occupy the village, just as if they had been an old-established community. But instances such as this are very rare, and I believe only of modern times. They show, indeed, a spirit of enterprise, and a power to combine, which is new in India, except, perhaps, among the criminal classes.

Where estates of this class became very much subdivided, and if the land revenue or the sovereign's share was raised so high as to absorb the rent almost entirely, the proprietors were reduced to a condition little better than that of the common cultivating tenant. The only persons who derived any greater profits from the land were the head men, or managers, who,

under native Governments, were usually allowed a percentage, or a grant for making the collections. The tendency, then, was for all the proprietary rights to be gradually absorbed by the head man, who became powerful as his brethren became weak. The estate would thus change into one of the first class.

I have seen the same change brought about in another way. Under native rule, and in the earlier period of British sway, the methods of collecting the revenue were too rough and ready to be pleasant. And it was not every one who cared to have to do with the revenue officials. Hence a custom arose for many members of the family to withdraw from any share in the management of the estate, and to content themselves with the occupation of their own plots of land at a nominal rent; while the rest of the estate and its management was left to the member of the family best fitted, from superior intellect or other qualities, to do battle with the representatives of Government. It was this person's name which was recorded in the public books as the payer of the revenue of the estate. In process of time, as the origin of this arrangement became forgotten, and the relationship between the different members of the family

diverged, the real rights of the old proprietors were lost sight of altogether, and they were recorded in our settlements as mere tenants, while the manager, or his representative at the time, was entered as owner. If there were no family dissensions, all might go on well for years, and the proprietors who withdrew from the management would suffer no actual injustice. But so soon as any quarrel arises, then the parties resort to the Civil Court, and the manager, having time and the records and apparent possession on his side, invariably wins the day, and reduces his unfortunate brethren to the position of mere tenants.

But in all these changes of internal management, the tenure of the estate remains the same. It is still held together as one property, subject to the payment of the Government demand, and cannot be dismembered without formal process.

We may now come to the fourth class of estates—those which belong to several owners holding in severalty. It will, perhaps, seem that this is a contradiction in terms, and that if each owner holds in severalty, the estate cannot be one. But the tenure is one, and it is the tenure which holds them together. If the tenure by

which they hold from the sovereign were dissolved, the bond of union would be broken, and they would become owners of separate estates. But, as it is, although the lands and homesteads are entirely divided off to each owner, according to his share, so absolutely that he has nothing to say to any of the others, yet since the tenure is one, the whole estate remains liable for the Government revenue ; and if any of the sharers defaulted, the Government might proceed against the others for the balance. The division, to use the technical revenue term, is “ private ; ” and, unless the bond uniting them—that is, the tenure—be severed by consent of the sovereign, it cannot become “ public.”

There is a class of estates which needs separate mention, and which is usually considered to be of a distinct tenure. I mean, revenue-free estates.

Strictly speaking, there is no such tenure as a revenue-free tenure ; and all estates, the revenue of which is not paid to Government, will fall into some one of the classes which I have given above ; the only difference being that the revenue is paid, not into the treasury, but to some private person to whom it has been assigned by the sovereign.

It was the custom—of very old date in Persia, and, probably, imported thence into India by the Mahomedans—to assign the revenue of certain estates to persons, either, for their maintenance, or as a payment for the support of a body of troops which the assignee undertook to keep up. Strictly speaking, the sovereign's power could reach no farther than this, and the land ought to have remained in the occupation of the real owners. It has even been maintained by some writers, that the Emperors of Hindostan had no constitutional power to make such assignments for a period beyond their own lifetime, although the words of the grant generally include the grantee and his heirs. However this may be in practice, grants for personal maintenance were always treated as hereditary, and as entitling the grantee, not only to receive the revenue, but actually to take possession of the estate, or the part of the estate, which was the subject of the grant. The proprietors, however, were considered entitled to compensation; and they received an allowance of a small percentage, which was considered—and, under the high assessments of those times, no doubt was—a fair valuation of their rights. But that this dispossession of the pro-

prietors in favour of the grantee was illegal, and an abuse of power, there is no doubt. And at new settlements of the land revenue; whenever the proprietor still remains in existence, and in receipt of his allowance, he is held to have a right to re-enter on the full occupation of his estate, while the grantee is restricted to the receipt of the sovereign's share, or the revenue, at whatever amount it may be settled.

Assignments for the support of religious buildings and institutions were of the same nature as grants for personal maintenance, and were treated as perpetual. In such cases, the proprietors generally have continued in occupation of the estates, paying their annual revenue to the trustees or authorities of the institution. Our Government does not interfere with such endowments, except to see that the conditions of the grant are fulfilled, and that the revenues are not misapplied.

Assignments for the support of troops differed essentially from other grants. They were strictly in the nature of a payment, the exact sum being specified, as well as the number and kind of troops which were to be maintained. If the revenues of the estates assigned exceeded the specified sum, the assignee was held accountable

for the balance. There was, then, in this, nothing of the nature of a tenure at all, and such an assignee could have no right of property in the land.

In later times, however, and under laxer rule, assignments of this kind were made unconditionally, without specifying the number of troops to be maintained. They were also allowed, in many instances, to become hereditary, either through the carelessness or the impotence of the native Government; and the assignees, as in the case of grants for personal maintenance, contrived to put themselves in possession and actual occupation of the lands. An idea thus grew up, that such assignments had conveyed an heritable permanent property; and they were treated in the regulations of the Indian Government, and in the decisions of the courts, as estates in land. Prior to our rule, grants of this kind—many of them fraudulent—had been so multiplied as to absorb a large share of the revenue of the State. It was by the revision and resumption of some of these grants, that so much odium was unjustly incurred by our Government. When I say unjustly, I mean that the inquiry into assignments of this nature, which were mere payments for a particular

service, and the cessation of such assignments, where no sufficient reason was shown for their maintenance, is a very different thing from the tyrannical resumption of lands granted by former Governments in fee simple. The acts of the Indian Government have been popularly represented as of this latter kind, whereas it will, I hope, be understood from the explanation I have given of this misnamed tenure, they were simply an examination and scrutiny of the expenditure of its own revenue. Whatever odium justly attaches to the Government on this account arises from the delay in investigating and deciding the claims of the parties interested, and from the extraordinary device of paying the officers employed to make the investigations by a percentage on the amount of revenue re-credited to Government.

I do not mean to say, that claims of this kind should have been invariably decided by reverting to the strict nature and origin of the grant. If an assignee of this kind had acquired actual possession of the estate, and had passed it on to his heirs, free of any service, whether by the inadvertence of the rulers or otherwise, I should not like to say that he had not acquired a title by prescription to a property in

the estate. In such a case, the old maxim, "*Mos regionis non minus dat legem feudo quam tenor*," is applicable. If, by the custom and common consent of the country, such person, though originally an assignee only of the revenue, was looked upon, and had for years been, in the position of a proprietor, it would ill become any government, and especially a foreign government, to go back to the origin of his tenure, and turn him out.

Even in the case of the grantee, who has for years been in occupation of the estate, and has paid a small annual compensation to the proprietor, I think it is doubtful whether we should not apply the same maxim, and maintain the present state of things. The opinion and practice of our Government and Revenue Board in the North-West are strongly the other way. No doubt it is very pleasant for the proprietor suddenly to rise from his position of recipient of a small annual stipend, to be placed in full management and enjoyment of his estate. But, on the other hand, it is very hard on the grantee, whose position is reversed, and whose income is materially reduced. It will be said, I know, that the latter is a mere assignee of the Government revenue, and only an usurper.

Very likely; but it is inconvenient to go back to the origin of tenures in this way. Many other people are only usurpers. Where an arrangement of this kind has continued for many years, it seems better to maintain it, especially when its origin dates prior to our rule.

Sometimes, although very rarely, the assignee of the revenue and the proprietor of the estate are the same person. This may have happened in one of three ways:—First, the proprietary right in the estate may have escheated, or been forfeited to the Government, which has given it, along with an assignment of the revenue, to the present holder. For instance, after the great mutiny, many estates were confiscated for rebellion, and were given to loyal persons, to whom also, as an enhancement of the gift, the revenue was assigned. Secondly, the assignee of the revenue may have been also the proprietor of the estate. Such cases are, however, very rare. Thirdly, the assignee may have permanently ousted and dispossessed the proprietor, and made good his title by prescription. Instances of this kind are to be found.

Finally, with reference to this class of estates, it is as well to add, that every acre held without

payment of revenue to the Government is known and accurately registered in the North-Western Provinces ; and every claim of the kind has been finally investigated and disposed of.

Having described the tenure on which land is held by the proprietors, I may pass on to the rights of those who hold under them. There seems to be an idea that peasant proprietorship is universal in India. In the North-West Provinces that union of ownership and occupancy in the same person, which goes by this name, is by no means the rule. Except in those estates where the property has become so minutely subdivided as to leave no more to each co-sharer than he himself can occupy, the greater portion of the soil is held by tenants, and where these have a right of occupancy, they often sub-let portions of their holdings.

In most estates of the North-West the cultivated lands will fall into three classes. First, we have the land occupied by the owner, corresponding to the demesne lands in Ireland. The limits of this land are definitely known and fixed ; and no tenant can acquire a right of occupancy on it. Secondly, we have the lands held by tenants at will, or on terminable leases,

given at the pleasure of the owners. Thirdly, we have the lands of the tenants who have a right of occupancy, who cannot be ousted except by legal process for non-payment of rent, and whose rent cannot be raised except by suit in a court of law, and on certain specified grounds.

When we occupied the country, we found two classes of tenants—one with a right of occupancy, and one mere tenants at will. Much has been written as to this right of occupancy, its nature, and how it was acquired. This much appears to be beyond doubt, that in most estates of the Provinces there were certain tenants who had hereditary rights. They held their fields subject to payment of a rent which was not liable to arbitrary increase. Their rights would seem to have been purely personal. They were, in some cases, men who had once held proprietary rights in the estate; in others, they were relatives of the proprietor; in others, they were merely tenants of very long standing, who had probably helped to bring the estate into cultivation. They were seldom men of inferior caste, and were protected in their rights more by public opinion than by legal enactments. As a class, they were strictly defined; their privileges

appear to have been acquired by inheritance only; and no mere lapse of time would seem to have been able to raise the tenants at will to a level with them.

The want of a precise and legal definition of the rights of these tenants soon began to be felt. Some reference is made to it in most of the reports written by the officers who were employed to settle the land revenue. The difficulty under which a tenant of this class who had been unjustly evicted lay, in proving his rights, was pointed out; and it was suggested by some officers, that if a holding of twelve years' standing could be shown, it might be accepted as *primá facie* proof of hereditary tenancy.

Strange as it may appear, these and like suggestions seem to have been adopted as the basis of legislation. In 1859 an Act was passed for Bengal and the North-West Provinces which gave right of occupancy to all tenants who either personally or by inheritance had held their lands for twelve years or more.

It is not too much to say, and I think it is now generally acknowledged, that for this hasty legislation there was no warrant to be found, either in the customs or the common law of the Provinces. What a surprise it was to the land-

lords and to the tenants themselves, people accustomed to the slow process of English legislation can hardly realize. In England, a grievance must first work out its own acknowledgment and recognition. It then finds expression in speeches, in pamphlets, in newspapers, in books. It obtains a place and position of its own among the topics of the day. When it is worn almost threadbare, it takes the form of a legislative measure. It is again discussed in the House, and out of the House. And every one who is interested in it to the smallest degree can have his say, and can be heard about it. The law, when it is passed, is seldom the nostrum of this or that great man ; but it is the expression of the opinions and wishes of the majority of practical men who are affected by it.

In India, unfortunately, the great mass of the people—for instance, the eighteen millions of agriculturists—who form the bulk of our population in the North-West, have no means of expressing their opinions. They have no public organs, no great meetings, no pamphlets, no books, no speeches. If it is a difficult thing to know what public opinion is on any matter in England, how much more difficult is it in India ?

The process of legislation, too, is of necessity widely different in India. There is, I may say, a total absence of public discussion. Even documents, such as letters and minutes, which are used as evidence for or against the enactment, are often not laid before the public. Thus in the case of the Divorce Act, lately before the Indian legislature, I see complaints in the papers that letters referred to in the Council, as evidencing the need of legislation, and a minute by one of the most influential members, had not been published. Where the matter in hand simply affects the English in India, or is a concern of the executive Government, the discussion is generally wide enough. But where it affects the dumb masses, as in the case of a land measure, legislation in the dark is very dangerous. And it is legislation in the dark. The Council consists of a few able men from the Services, a few of the leading merchants and natives, with the legal member, who is always one of the most distinguished members of the English bar. It is not representative of the people in any way. The great danger of such a legislature is, that it is too far in advance of the people, especially when it is led by a man of the great culture and pre-eminent talent of

the present legal member. A highly advanced Government, and laws embodying all the most recent conclusions of European thought, with a people wedded to an Eastern semi-civilization, is a great practical inconsistency. Although I believe that it is, only from above that this people can be enlightened, and that a refined legislature is one of the best and most potent influences for their education, still, I am sure there is some truth in the warning which we lately received from Scindiah, and which was probably inspired by his illustrious subject, Sir Dinkur Raoe, against over-legislation. Especially in matters connected with the land, we should be careful that the wishes and feelings of the masses are studied, and no place be given to theory or speculation. Our system does not, I think, ensure sufficient care in this respect. When the legal member arrives fresh from England, he probably finds a score or so of draft Acts prepared, and eagerly urged upon him by men, each of whom thinks that his law is that most needed to set things to rights. A few men of reputed talent and experience have been consulted about the proposed laws. The opinion of some of the most influential natives has been taken. This is all very well; but the

millions who will be affected by these laws have not been heard or questioned. The officers of Government, who have recorded minutes or notes on the subject, are men whose opinions are entitled to great weight. But we have no security that the views recorded by them are not entirely, or in great part, their own. So nobody can question the wisdom and integrity of the native gentlemen who are consulted. But have they the experience or knowledge of the matter necessary to legislation? Do they really know the wishes and wants of the people, the millions who cultivate, or even the thousands who own, the land?

When under consideration, the laws are published, it is true, in the Government Gazette. One or two of the English papers notice them. The vernacular papers, also, will have some leaders on the proposed laws. But neither the Gazette nor the papers penetrate to the people. Do they know what the great English lords are preparing for them? I fear not. Suddenly the truth bursts upon them. A great Act has been passed. Their dearest rights have been dealt with, curtailed, overturned. They learn all about it after a time; but the school in which they learn is the law-court.

If the subject had been really ventilated, and information collected, it is inconceivable that the provisions of Act X. of 1859 could ever have become law. It is proposed now to alter them. But the mischief is done; and I cannot see how any change can now be of any use. It is proposed to make twenty years of occupancy, and actual succession by inheritance, necessary to give a tenant a right to hold his land. But unless this provision is made retrospective, which is impossible, the landlords, who are the persons aggrieved, will not benefit by it. For, as regards the future, they have the matter in their own hands. They can and do eject their tenants before the twelve years have run; or they can give them definite terminable leases. On the other hand, by any new legislation, the minds of the whole agricultural classes will be again upset, and the ill-feeling between tenant and landlord, which the twelve years' rule has caused, will have no time to heal. On the whole, we can, I think, do nothing better than leave things alone. We have made a mistake, and the only thing to be done is, to provide against similar errors for the future.

There is, I believe, a measure now before the Legislative Council in India, the purport of

which is to establish the right of the tenant to compensation for improvements effected by him. These improvements have, I may say, no other form in the North-Western Provinces than that of wells for irrigation. As I have before explained, in the Note on Irrigation, these wells may be either of masonry, or mere holes dug in the earth. If they are of masonry, the tenant must, by the ancient custom of the country, obtain permission from the landlord to sink them. If they are of the latter kind, the tenant is as much bound to dig them as he is to plough the land. And he would be as fairly entitled to compensation for the cost of tillage, as for the expense of making these wells. The object of the proposed legislation is, I conceive, to give the tenant the right to sink masonry wells, and compensation, in case of eviction, for his expenditure.

This is an infringement on the long-recognized rights of the proprietors; and it is a greater injury to them than may at first sight appear. For what class of tenants may be expected to take advantage of this privilege? Clearly not tenants at will, who seldom have the means, and without the permission of the landlord can never have the opportunity, of sinking a masonry

well—a work which cannot be done in a day. No; it is the tenants with right of occupancy, in whose favour this legislation will be. They can proceed to sink their wells without any danger of eviction, and can then profit by the irrigation without any fear of having their rent raised; for the landlord is prohibited from raising their rent on the ground of any improvement effected by them. The great means, therefore, which a landlord had of increasing his rental, by improving his estate, will be taken from him.

A very strong case ought to be shown by the tenants before this measure becomes law. And certainly the landlord ought to be carefully heard and consulted.

If it is shown that the tenants are ready to expend capital in masonry wells, and that, by the present state of the law, the spread of irrigation is checked, a very strong case for legislation will be made out. But I very much doubt whether anything of the sort can be shown. As far as my experience goes, the number of tenants who are willing or able to sink wells is very small. But if they are permanently secured against an increase of rent, it will be well worth the money-lenders' while to advance capital on the security

of their holdings. Perhaps this is what the framers of this measure have in view. But the real way to ensure increased well irrigation is, to advance money to the landlords freely for the purpose. Their rents will then be increased, and the revenue will eventually benefit by it. In the other way, unless the tenant has capital of his own, which I take to be a very rare case, the money-lenders of the village will reap most of the direct profit.

What need there is to press on this measure with haste, I know not. Certainly, there was no outcry on the part of the tenants. Yet the matter was, I think, not a year under public discussion before the Council was pressed to pass it.

The power of a tenant with right of occupancy to sub-let his holding is universally acknowledged. It is a privilege very generally exercised. The sub-tenants are prevented by express provision of the law from acquiring any right of occupancy on land thus sub-let to them.

In some districts, tenants with right of occupancy are allowed to transfer their holdings by mortgage or sale. In other parts, this practice seems unknown, and would probably be resisted

by some landlords. The custom is apparently creeping up the country from Lower Bengal; and unless the legislature interferes,\* which I hope it will not do, it will probably become universal.

It should be understood that a right of occupancy does not necessarily imply or involve a low rate of rent. Owing to the restrictions which prevent a landlord from raising the rents of tenants of this class arbitrarily, their rents do not rise so fast as those of tenants at will. In some parts of the country, they are found to pay a higher rate than other tenants. In former times, this was commonly the case. The hereditary tenant was always a resident on the estate. Much land was lying idle, and cultivators were scarce. The landowner was glad to let his waste lands to non-resident cultivators at any price, and so to lessen the burden on his tenure; while from the old tenants residing on his estate, and attached to their ancestral lands, he had more power to exact a high rate of rent.

Under like circumstances, we may find the same state of things now. On this account I am averse to the proposal which has been made, of arbitrarily settling the rent of tenants with

\* Such interference has taken place in the Punjab.

right of occupancy at a certain percentage below the rents paid by tenants at will.

Indeed, as a rule, in these Provinces, no argument can be drawn as to a man's rights from the amount of rent which he is paying or has paid. The Government demand was sometimes raised so high as to amount to a rack-rent on the estate. In such a case it would happen that the proprietors would be compelled to let land even at a lower rate than that of the Government assessment. They were still oftener glad to get the revenue rate for the land, without any profit for themselves.

The same phenomenon is found even when the Government demand is not unfairly high. If the proprietors have more land than they can cultivate, and tenants are scarce, it is better for them to let land even below the revenue rate, than to let it lie idle. Arguing from cases of this kind, some men were for elevating the tenants to a level with the proprietors. Others were for limiting the profits of the proprietors to a small percentage on the revenue, because, forsooth, they had been unable hitherto to get more from their tenants than the rack-rent which the Government absorbed. Others denied the existence of proprietors at all.

As a maxim, then, it may be laid down, that no conclusion can be absolutely drawn as to a man's rights, either from the receipt of rent, or the rate of the rent paid by him. A man may enjoy part of the rent of an estate without having any proprietary right in it; and a mere tenant at will may hold land at a rate more favourable than that paid, not only by tenants with right of occupancy, but by the proprietor himself.

Besides the actual landowner and his tenants, there are sometimes found in an estate persons who have been designated sub-proprietors. They are men who have acquired plots of ground in the estate by sale or otherwise. They are *pro tanto* proprietors, although they have no voice in the general management. Their land still forms part of the tenure. If they do not pay their share of the revenue, that is only a private arrangement between themselves and the proprietors. Should the estate come by default into the hands of Government, they would become immediately liable. They hold, therefore, really on the same tenure as any other proprietor.

It is not within the scheme of these remarks to detail the elaborate system of records which

exists in the North-Western Provinces, of all rights and interests in the land. It will be enough for my purpose to say, that there is a record kept up for every estate, in which the rights and interests of every man, whether proprietor or tenant, have a place. Great pains are taken by the Government to secure the completeness and the accuracy of this record. It is to be hoped, that when the people are sufficiently educated to understand the value of such a record, they will give their aid, without which complete success cannot be attained.

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